WHAT I BELIEVE AND WHY

WILLIAM HAYES WARD

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BY

WILLIAM HAYES WARD

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WHAT I BELIEVE AND WHY

INTRODUCTION

AS children we learn by being told. Our beliefs must be taken on the authority of parents and teachers. It is only with the access of years that reason develops far enough so that we seek the basis of accepted beliefs, that we confirm them or doubt or disbelieve. Many beliefs we have to take all our lives on the testimony of others. Travellers have told us of the city of Timbuktu, and we do not doubt its existence. We have seen it in the atlas, and that is enough. A hardy explorer has reached, or says he has, the South Pole, and we do not, or cannot, prove or disbelieve his claim, but we accept it. A multitude of other beliefs our own observation or reason confirms, and some it denies.

Not all our beliefs accepted from parents or teachers can we easily test in any concrete way with eyes and ears. They are beliefs or opinions relating to matters of political wisdom, of social welfare, of religious creed and duty. These we have inherited and are very likely to hold because inherited, without seeking to test them. We have a prejudice in their favor, and we do not care to examine the grounds of our prejudice, or we have

not time or energy or opportunity to make the investigation. We still listen to those who assert what we have been taught, and do not think it worth while to hear the other side. We may even give study to the subject, but only by reading the arguments on our own side, that we may strengthen our own defenses. Thus a man's mind may in early life lose the power of expansion, may be anchylosed like the sutures of the skull, so that further growth is impossible.

Yet even if this is not the case, if the mind is kept open to new views of truth, it is a fact often observed that changes of view come gradually and insensibly. The bearings of facts that seemed at the time insignificant, or a number of them, only after a period of gestation demand attention. We find to our surprise that truths we thought certain become less certain, perhaps quite doubtful. Our attitude on living questions has insensibly changed. Socialism does not seem as impossible as it did, nor the devil quite as personal. And still, in the stress of daily work, we do not take the time, or have not the energy, to draw a fresh map of our beliefs; or we feel a certain hesitancy or fear about charting them, because we are comfortable as we are, or not uncomfortable, and the definite recognition of a change of belief would be disturbing.

Something like this has been my attitude toward the great questions of religion; and yet for

many years I have felt it my duty, when I could, or whether I could or not, to investigate so far as I might, the grounds of my beliefs as to God and Scripture and Christ and worship and duty. In my day, knowledge in science, in philosophy, in archæology, in criticism has made it possible to recast the grounds of one's religious belief; and even one who, like myself, has not been able to give his time professionally to these studies will yet have caught the currents and been borne on the drift of them, and may be sufficiently informed generally, if not critically and at first-hand, to be at liberty to make his own judgments and draw his own conclusions. This is what I have long resolved to do, just for my own satisfaction, and, possibly, to bring useful suggestions to others who may feel the same desire to orient their faith and know what they believe.

May I be allowed to say that I was fortunate in having inherited an interest in religious questions? For three generations before me my lineal ancestors had been New England ministers. My father's library was rich in theological works, as well as works in philosophy, and these he encouraged me to read in my younger teens, Edwards, father and son, Hopkins, Bellamy, Emmons, and Dwight, while Calmet's "Dictionary of the Bible," and Horne's "Introduction" were familiar to me. For his day, my father was a liberal in theology, not a Unitarian, although his

library contained, and I read, on both sides the discussions of Woods and Ware and Stuart. My father was a disciple of the newer theology of Emmons and N. W. Taylor, and was an admirer of Park in his polemics with Hodge. I was thus taught early not to accept an old faith unless it was proved true, and yet to be hospitable to new truths that might break out of God's holy Word. In those days the inspiration of the Scriptures was not much questioned, except by "infidels," and yet we were beginning to doubt whether the Bible was written to teach us science. Hugh Miller and Edward Hitchcock were telling us that geology might bring us a fresh interpretation of the six days of creation.

I think my first unrecognized doubt as to the historical certitude of the Bible came in the three years between the ages of six and nine, during which my father required me to read the Bible through in Hebrew, he being my teacher. He believed, I am glad to say, that Hebrew was an easier language to learn than Greek or Latin, and with three years for each, and in this reverse order, he required me to read the whole Bible in the original tongues, with the Old Testament also in Greek and the New in Hebrew, and both in Latin. It was during those years given to Hebrew, certainly not much later, that I learned from my Gesenius's "Lexicon" that Babel in Arabic means the gate of God, Bab-Il, and not

confusion, as the Genesis story tells us. I knew that Arabic was allied to Hebrew, and the derivation in the Arabic seemed more natural than one which came from *balal*, to confound. The doubt did not germinate very much, but it remained, and it was somewhat confirmed when I was required to read Stuart's "Commentary on Daniel," which discussed questions of historicity, not wholly after the conservative way. When my father taught his older children the Assembly's "Shorter Catechism," he took great pains, in a sort of Sunday evening lectures, to show us why the answers were true, and at times why they were not true. In this very favorable atmosphere of instruction I was taught to keep the sutures of the mind open and free, not hastily to take new conjectures, but yet hospitable to their consideration, as was Jonathan Edwards, the great reformer of New England theology, one of whose resolutions, written in his boyhood, reads:

> I observe that old men seldom have any advantage of new discoveries because these are apart from a way of thinking they have been so long used to: *Resolved*, if I ever live to years that I will be impartial to hear the reasons of all pretended discoveries, and receive them if rational, how long soever I have been used to another way of thinking.

In this way have I taken the liberty, for which perhaps I ought to ask pardon, to give a personal

explanation of the occasion for this study, and for the personal character of its title, "What I Believe and Why," and for the personal element which may appear in the following discussions. I would not impose my conclusions on the reader, but I would suggest to him the reasons for my own more or less certain faith.

If one wishes to know definitely what he believes indefinitely, and why he should believe it, how shall he begin? He should purge his mind of all prejudice, and even discharge it of all preconceptions and even beliefs, and begin at the beginning of his knowledge, at least on all religious and even ethical matters, much after the method of what is called the Cartesian Doubt, which, in philosophy, begins at the very beginning, with the recognition only of personal consciousness. That is, he should put behind him, for the nonce, any impression of belief, or disbelief, in God or gods or sacred books, and of obligations or distinctions of right and wrong. The first assumptions will be of one's own natural powers, and one's own consciousness and one's own perceptions as they take hold of the outside world; and he may then accept those results of science that are accepted by all men of science. Thus the facts of chemistry, the geological history of the earth, the nature of the solar system and the stars, and all the world of vegetable and animal life, with the working of human psychology, all these will be

the basal data for one's conclusions as to religious faith.

For the first question that will come to us is: What is the basis for natural theology? Do we believe in a God? To be sure, theology is a very different thing from religion. Religion has to do with our duties toward God, or gods, if such there be; while theology is the philosophy which classifies and supports our beliefs, and beliefs only. Religion has to do with obedient service to a superior Power, and has its object in that Being; while theology has its end and object in one's self, in satisfying intellectually one's own craving for knowledge. Yet because one cannot experience obedience or reverence toward God until one has an intellectual and theologic belief in God, because belief in God so requires religious relations toward Him, therefore we somewhat loosely call our beliefs, our theology, religious, while in fact the mere correct belief in God is no more religious in itself than belief in a devil or a Chinese dragon or a sea serpent.

But this anticipates what must come later. For the present, we may dismiss Bible and God, and ask of nature about us the primary question in natural religion: Is there a God? Later, if after going forward and backward we should find Him, the related duties will need consideration; and after that we may inquire what are the evidences of revelation, and what its contents, and

whether death ends life. For the present we are concerned with the data which will give or suggest a conclusion on the great question of Theism. This is more than half the quest.

CHAPTER I

THE DATA FOR BELIEF

I HAVE said that if I want to know truly what I ought to believe about religion I must first discharge myself of all prepossessions and begin at the beginning. That beginning is that I must trust the validity of my own consciousness of myself. I am, and I am conscious of myself in my moods of action and feeling. I, as nominative case, subject, objectify myself as objective case, object, and *I* declare *me* to exist—under these moods. I cannot doubt the fact. It is a real existence, even if it be called an illusion, a dream, for the dream, or illusion, exists, and so does whatever may be under that dream or illusion. I *am*, *I* am, I, the substantive I, and I cannot but believe in the substantial *me*.

Next comes the recognition of the moods under which I exist, the thinkings, feelings, doings; the sensations, the perceptions. I recognize that as a thinking, feeling being I am a continuous mind, and also that I am, or have a body. By my senses I cannot but be convinced that there is also something external even to my own body, other bodies, animate and inanimate. I appre-

hend them by five senses. I am convinced that they are not a subjective illusion. To be sure, I am familiar with what seem for a moment real objects seen, which are illusions, as in dreaming and in insanity; but through the concurrence of the senses, in the tests of my waking hours, I am compelled to believe these persons and things not me to be real existences, as real as I am myself. I conclude that I am not the mere spinner of unsubstantial dreams, *solipsissimus* amid the vacant spaces which I fill with empty shadows, fancying them solid realities. I live and move with actual objective persons and things, of which I am *unus inter pares et impares permultos*, one among multitudinous differing and separate realities. No sane person, not a philosopher, can believe everything to be subjective imagination.

My personal sensations give me the idea of time, learned through the succession of sensations; and my organs of feeling and sight give me the idea of space. I see myself existing in the moving current of time, and I see the world about me existing in space. My faculties give no limit, and they seem to deny any limit, to space and time. I cannot imagine a beginning to time or a boundary to space, while equally the conception of time and space as infinite is beyond my comprehension, but the fact is simple and easy to understand. Space and time are diverse quiddities. Space is universal and static, static be-

cause universal. It rests because there is nowhere to which it can move. It occupies the all. It is the great all-comprehensive Brahm in which all things exist. Matter may be in it here or there, and ether may be in it everywhere, while space is the condition of their existence. But time is present, passing, new. It was, it will be, it now is only in the flux of the moment, for it is of its essence to be impermanent. It moves us in its vast sweep of current, bearing all things with it. So out of that which no longer is time covers the whole of absolute space, and moves mightily in a great tidal ocean that knows no refluence. Space and time cannot be thought away as categories of imagination; they are facts, the conditions of all existence. Everything that is, has its limit in space, and is borne along by the stream of time.

I cannot admit any argument against the infinity of time and space, and so against any conclusions as to the existence from all eternity of included matter or mind, drawn from any assumption that beyond our possible knowledge there may be transcendent relations of time or space such as would vitiate any conclusions one might draw from them as we know them. Mathematicians and philosophers amuse themselves, for example, in talking of the Absolute, which has no limiting relations, or they fancy space of more than the three dimensions which we know as in-

cluding all its possible relations. They imagine an insect so far flattened down as to have no upper and under side, and which, given a mind, could have no suspicion that there was any other than the two dimensions of length and breadth in which it lived; and they then suggest that we may be such limited creatures knowing only the three dimensions familiar to us, while there may be others familiar to higher minds. They tell us that by adding a fourth or fifth dimension the present relations of space, as known to us, would be so changed that any present impossibility might become possible, and all knowledge and all conclusions annulled. So of time, they conceive a Higher Being who "views all things at one view," to whom there is no before or after, but only a present now, and who thus can know all things past and future, because all time is ever present to him; and they thus predicate as philosophy what the familiar hymn gives as poetry:

> "Eternity, with all its years,
> Stands present in thy view;
> To thee there's nothing old appears.
> Great God, there's nothing new."

A legitimate figure of speech in poetry cannot so easily be transferred to philosophy. When we know that time and space are actualities we cannot blow them out with a whiff of fancy, as if a dream. To explain difficulties by denying the

validity of reason is intellectual suicide—we might as well bury all philosophy and suppress at once all reason if we are to explain our ignorance by the denial of our knowledge. An Absolute which is limited neither by time nor space is unthinkable to us, and we must think of it as impossible to God. Any being however supreme who exists must exist in the categories of time and space, which are quite as necessary as he is himself. To assume and argue otherwise is to be, like Milton's devils, "in endless mazes lost."

Next I begin to examine the not-me. I find that about me is the world, and I discover that the earth is a part of the solar system, and that the sun with its satellites is but one in a vast congeries of stars which are numberless suns like our own; some of which we know have satellites like ours. I then begin to ask what is their history, their origin, and their future.

I see that this earth I live in is a round ball, made of less than a hundred elements, and then I ask if these discrete elements are really simple, indivisible, and essentially permanent, and I am informed that they are probably each composed of a definite number of subatoms, which may, or may not be the ultimate corpuscle or corpuscles. Beyond that I cannot go. I am not yet informed whether these subatoms are solid, impenetrable ultimates, or are movements, whorls, vortices in a *primum mobile* which physicists call

ether. There I must leave the matter for the moment.

Then I study the earth I live in to learn its history. I find it has had a succession of ages, that it has possessed successive stages of continental development. It was once the scene of vast paroxysmal upheavals, under the influence of internal forces which have gradually diminished in activity. The earth was once much hotter than it now is; its oceans boiled, its crust was molten, but through numberless eons it has cooled and solidified until now it suffers only from occasional earthquakes; and here and there spout out from below its volcanic fires. That is, there was a time when it was molten, but now it is cool and habitable, and this process of cooling is going on every day, and the time will come when the last internal fire will cease to burn, and the earth will be cooled solid to the centre. In the course of nature this must be in time, we know not how many billions of years hence.

But, equally, there was the time when it was a molten mass, and there must have been a time when this condition began to exist, for the sure process of refrigeration is not yet completed. The fact that at this time the process is not completed is proof that the earth has not existed as earth from infinite time. It began to exist in finite time.

I turn then to this earth's sister satellites and

to the sun which is their centre. I find that the big planets, Jupiter and Saturn, have not yet cooled down. They are covered with clouds of steamy vapor. The small ones, from Mercury to Mars, have cooled down like the earth. But the sun has not cooled down. Its immense mass has not yet allowed it to become solid. But it is giving off heat all the time, and in time its supply of heat will be exhausted, whether it comes by contraction or by the falling into it of meteorites, or from some chemical source, like radium, which we know little or nothing of. It must follow the example of Jupiter and be surrounded by vapor, and later like the earth become solid, rigid, and cold. That will happen, under all known physical laws, after myriads of eons. But it has not happened yet. Therefore the sun has not existed as source of light and heat for an infinite series of years; otherwise it would have finished its course and become a dead sun. It had its beginning.

Then I look beyond this solar system. I find that this world of ours, the sun with its retinue of planets, is but one in the midst of a vast multitude of similar suns. They are about us, in every direction, at vast distances from each other, and reaching out one beyond another, distance added fathomlessly beyond distance, immeasurable, inconceivable. But we see them crowded in a ring that divides our heavens, thickest in the ring, and more scattered elsewhere, so that it

would seem that this our sun and this our earth are proximately, as spaces are measured by light-years, somewhere near the centre of a vast ring of stars, forming in the total a huge system of suns and stars, all in movement, and all, it may possibly be, revolving about some common centre or centres. We do not know certainly, but we know of some that they are moving, and that our own system is in swift motion in space. We can only conclude that probably they are all in motion, even as the planets of our own solar system have their common motion. Our little system will then be the microcosm of the multitudinous macrocosm which astounds our vision with its immensity as we gaze at it on a clear night.

But again we ask: What is its history? Had it a beginning? Will it have an end?

What is true of our sun is true of every sun which occupies its place in the starry universe, its little space as compared with the incomprehensible spaciousness of the entire circuit of stars whose multitude blurs the Milky Way, and whose tens of thousands blaze in the rest of the sky.

As the sun had its beginning and will cease to shine, so each star is giving out its portion of heat into space, losing its light, approaching its frigid death. Because it has not yet reached its grave, it has not existed as a sun from eternity; it had its beginning. The stellar universe, at least as we know it, is not infinite, it is finite, in time.

And it is not infinite—it is finite, in space. By very nice measured observations we discover that our sun is moving in space, very swiftly as we measure movements on the earth, very slowly as we measure stellar time and distance by the space through which light will move in a year. Many of the stars we know are thus moving, and we reasonably presume that they all are moving, and in their several paths or orbits, but which are yet as fixed and limited as is the circle in which the stone moves which a boy swings by a string about his head. So far as we can learn the entire universe of stars which we see is one system, or possibly two systems, limited within its own round of revolutions and attractions, and bounded by the emptiness of space, the same sort of space beyond it. Whether beyond this stellar complex of moving stars there exist yet other stellar systems like this which entrances our vision, we do not know. But, so far as we can learn, our universe, all, anywhere in total space that we know to exist, is not infinite; it is limited. It is just as truly limited as "the visual line that girts us round," and which the ignorant yokel deems "the world's extreme." The space about our system of stars we must think of as boundless, infinite. Within our limited universe we see enormous empty light-year spaces, and then outside this universe exists a further reach on every side of empty space, yet where there may exist, beyond

our power to discover them, other distant systems occupying their space in the void where place is not, such systems as astronomers used to guess they had discovered in nebulæ. They may be there, hidden by some failure of light to penetrate the distance. It is possible, but we have no evidence that such is the fact. At all events, our universe, and any other like it, is finite in space as in time.

The question whether the stellar universe had a beginning, and is thus finite in time, requires some further consideration. Our solar system has a brilliant central sun, and non-luminous planets which would be quite invisible from the nearest star. We know that some of the nearer stars have dark planets revolving around them; they are variable stars, hundreds of them. Can it be only the planets, no bigger than Jupiter, that have cooled down, so as to lose their visibility; and are the visible stars all large, and are they all the large stars there are? If so, they are all of about the same age, came into being at about the same time, in a vast yet limited backward view of time; and we can then have a conception of the beginning of our present-known universe. But we have no reason for believing that such is the case. There may equally as well be larger stars that have lost their heat, and are therefore invisible; and if so there may be multitudes of them. For aught we know, and it is quite probable, the number of

dark, cold, invisible stars may be many times the number of the visible stars. If such is the case, it throws the time of the beginning of our stellar system uncounted eons back to the time when the oldest and deadest of all the dark stars began to emit light.

That there are such dark, invisible stars we have evidence in the sudden outbreak in the heavens of a new star, where no star, or a very faint star, was visible before. The only reasonable explanation of such a phenomenon yet given is that of a collision between two stars. Attraction has somehow brought them together, and the collision bursts them into intense heat. They will be blown into fragments, mostly into gaseous vapor, continue for a while in violent combustion, and gradually sink into a state of comparatively quiet heat, and lose much of their temporary splendor, and may even, if small enough, cease to be visible at all. Where they shone out for a few months or years there will again be a dark spot in the sky. They are there yet, but as dark stars.

Now of such stars invisible to us there may be millions in the heavens. We have no reason to believe there are not. There is room for them, as there is for the visible stars, to continue on their mighty orbits or along their common paths. How do we know that our sun was not the result of some such collision? That would have been the beginning of the creation of our solar system

out of the materials of two elder suns, forming at first a vast huge mist of fire, and gradually cooling and condensing into our system of sun, planets, satellites.

We have, then, no reason to believe with any certainty, or even probability, that the beginning of the visibility of the stars we now see in the heavens was the beginning of their absolute existence. They may have existed in other forms, as components out of which these present stars were made. Those previous components may also have passed through their cycle of change, the products of some previous collision; and this process may have continued on indefinitely in past time, for time which extends into a past eternity is long enough for any conclusion, no matter how slow the process. It would then seem that we do not find in the heavens themselves any evidence that limits certainly the date of its origin.

Yet there may possibly be one such evidence of limit. If in case of collision of stars one is made out of two, then the number of stars, living or dead, is being constantly, and no matter how slowly, reduced. So far as I can see there is likely to be some such reduction. To be sure, in not every case of a new star must the two that meet join to form a new larger one, for the angle of approach may be such that they will only brush against each other, and then pass on with changed motions. But this will not explain such a sys-

tem as this of ours; nor will it explain the spiral nebulæ. These must be cases of an actual union of the two into one, and in that case a lessening of the number of stars until, we may well conceive, they shall all be combined into one common mass. But that has not yet occurred, and it looks as if our stellar system had a beginning.

That is, if there is any force which could prevent the stars moving indefinitely in their set courses so that they will not ever come into collision. But we know that some of them have come into collision. That might be because two orbits happen to cross each other, and the two stars happen to meet at the node. Then there would be sure to be a collision. Or we may imagine that there exists in space some retarding substance, lightly gaseous or meteoric dust, or larger meteoric objects which, meeting the moving star, are drawn to it and so, however insensibly, reduce its motion and so tend to bring it toward a common centre. No matter how infinitesimal this effect, yet in unlimited time the result would be sure at last to be reached. Every meteor that hits the earth somewhat changes its orbit and period of revolution. Yet we are not sure that these wandering masses or fragments of local matter exist in the stellar spaces. All we know is that they exist within our solar system and may have originated there. We do not certainly know that hyperbolic comets, or those that appear such,

come from outside our system. The most we can say is, that, so far as we yet know, there is no limit that can be set to the beginning of our stellar universe, for the great bulk of stars may never come into collision, and their path may never be changed either by collision or by their permanent retention in a fixed orbit, nor their speed reduced by wandering free portions of matter so as to bring them into new colliding orbits. We only know that certain collisions have taken place. The stars give us no certain evidence in themselves as to whether in some form or other they have existed from eternity. But we do know that in their present condition their existence is within limits of time, for they have not yet ceased to expend their light and heat.

CHAPTER II

ETHER, MATTER, AND MIND

I HAVE spoken of matter in its masses as suns and stars, as affording data which one should consider when asking what is the Cause of all things. We need to consider them more in their material, to ask what is their atomic constitution.

Chemists tell us that everything we know—soil, rock, plants, animals—is made up of various combinations of some eighty different elements. The combinations are innumerable, the components are few. These elements have, until lately, appeared to be final, undecomposable. Of them this earth is composed.

But these elements, so called, are not elementary. Each element, even the simplest, such as hydrogen, is itself a complex system of vastly smaller atomies called electrons, which move about each other and bump and sometimes escape, possessed of velocities comparable to that of light, yet held together by a force far greater than any other force we can control. There are said to be a thousand of them in one atom of hydrogen. In a space of air not so big as a pea, one part in one hundred thousand is the gas neon, and of

that neon there are ten million million neon atoms, each one of those atoms composed of perhaps ten thousand electrons, charged with electricity, dancing about in spacious room. This is the wonder of matter, of all the matter we find on the earth. How is it with the stars?

There fall to the earth occasionally from the sky masses of matter, not of the earth, but of the nature outside of the earth. Analysis proves that they are composed of elements such as we are familiar with on the earth, metals, stones such as ours. We then would presume that the nature we do not know is all of it like the nature we do know.

But we can be more positive. With the spectroscope, whether a glass lens or a fine grating, we can break up the light from any flame into the colors of its spectrum, and across that spectrum will appear certain lines, and every element gives its own characteristic lines and tints. Thus hydrogen has one set of lines, carbon another, iron another. This method of analysis applied to the light of the sun shows that its highly heated photosphere is made up of various elements familiar to us on the earth, for in its spectrum are the lines we find here in iron, carbon, or hydrogen. We then conclude that the material of which the sun is made is just the same as that of which the earth is made, and we begin to conclude that the sun and the earth belong to one single chemical

system, as well as to one system of orbital movement. The sun is proved to be of the same elemental constitution as our earth. The two are of one pattern.

And spectral analysis has been applied to the stars, to such as emit light enough to allow it to be condensed and to form a spectrum; and we find that they too, and the nebulæ as well, have precisely the same elements as we find on the earth, and they show no others. They too are of one pattern, one chemical scheme with our solar system. Some show a simpler spectrum than others, due, no doubt, to their different intensity of heat. Some have cooled down more than others; some are larger than others, some older than others very likely. They indicate various stages in the process of their refrigeration; and we may conclude that those which have cooled down so that they have ceased to emit light are also of the same chemical composition; for when they collide and give us a new star, that star shows the same familiar elements when analyzed with the spectroscope. The total universe of stars is of one composition, forms one chemical system.

Another point must be considered. Not only is the chemistry of all the known universe the same, with its atomic attractions therein involved, but we know that the other physical forces which control the stars are the same as control the earth.

They have the same laws of heat. They kindle and cool in the same way. Their gravitation is the same, when two stars rush together, or double stars are held in their orbits by the balancing of their projectile force and their mutual attractions, or where the nebulæ display their spiral courses. Gravity rules the whole universe. And the laws of light work the same everywhere, the light of all the stars obeying the same law as controls that of a candle, carried equally on waves of ether. The whole great universe of starry worlds is one, built out of the same materials, moved by the same forces, governed by the same physical laws. It is all one single system, one law, one order of thought, one scheme, one geometry, one plan fitted to one formula, one unitary universe.

Yet one more great fact must be considered before we can apprehend the full grandeur and marvel of the simple oneness of the vast complexity of our visible and invisible universe, visible in some of its separate concrete masses, invisible in its uncounted darkened stars; minute past all possible combination of lenses in its ultimate atoms; yet not merely invisible but imponderable, and to all the nicest deductions of science, immaterial, that pervasive something that fills the boundless spaces which separate the heavenly bodies; that next to nothing, mysterious, universal *ether* whose waves bring us the record, not

of the stars only, but of every movement that we can perceive. It is this ether to which we must now direct our attention.

We do not know certainly what ether is. It is usually considered a something, neither solid nor gaseous, scarcely to be named material, scarcely immaterial,

> "If substance might be called that shadow seemed,
> For each seemed either";

sui generis, not atomic but continuous, everywhere freely mobile within the most condensed solids and filling equally all vacuums, having no quality that we know of except that of carrying, like water and air, various sorts of vibrations, such as light and the current of wireless telegraphy, and by its inexplicable strain all the forces of gravitation. But the most remarkable power which is ascribed by physicists to ether is that of being the essence, substratum, or material of all chemical atoms, that is, of all matter. Physicists talk of ultimate atoms as nothing more than vortices or some other modification of ether. Somehow, somewhere, the invisible and inconceivably tenuous bits of ether were compacted into solid atoms of matter, or into the subatoms, electrons, out of which the atoms are composed. Once thus converted into matter these atoms, so far as we know, cannot lose their structure or their attractions. We have never seen atoms resolved back

into ether, nor have we seen them created out of ether. How they got their new motions we do not know, nor can we guess when they began to exist. We only believe that matter, all that exists, here on the earth or in all the labyrinth of stars, is an inscrutable modification of ether, massed close and solid where earth and suns and stars are; but in all the void spaces where stars are not, incalculably vaster spaces, is uniform, continuous, inactive ether, doing nothing, only responsive to forces that impinge on it and pass through it, the matrix of all things, out of which all things came, and without which no life, indeed no form of matter could exist, the source of all things, which in our later science replaces the old Eastern Chaos, or Tiamat, for it is

"The womb of Nature and perhaps her grave,
Of neither sea nor shore nor air nor fire,
But all these in their pregnant causes mixed."

And equally ether is the universal medium which binds all things, that through which all forces act, from cohesion to gravity, apart from which the universe, if there were a universe, would be a chaos. In the straining of ether abide all the mightiest and all the tiniest forces we know. It is the mystery of the universe. Inactive? Nay, the reservoir of all force.

And what is the extent of this ether? All we

can say is that it pervades and fills all space so far as our eager knowledge can pursue it.

"Beyond the loom of the last lone star through open darkness hurled,
Further than rebel comet dared, or hiving star-swarm swirled,"

reach the confines of ether, for it embraces the outmost circuit of our stellar universe.

Does it reach beyond, infinitely beyond, our system of stars? We know not, for of the spaces beyond we can know nothing. If there be ether there no star shines to send us word. If there be no ether beyond, it would seem that no star could exist, if stars are made out of ether; or if not so made there would be no undulatory medium to bring us their light, only

"a dark,
Illimitable ocean without bound,
Without dimension, where length, breadth and height
And time and place are lost."

But because, so far as we do know, to a distance that seems infinite to us, but is not infinite, the ether exists complete and effective, we can only presume that it exists still beyond, as infinite as infinite space itself, filling all space, competent to be the material of infinite worlds, and systems of worlds beyond the single Galactic Circle of suns within which our sun shines so splendid, so

predominant to us, but seen from other worlds no more than an inconspicuous star.

What the mighty visible and invisible universe shows to us is a boundless and infinite expanse of space, and all apparently occupied by the medium invisible, rigid, they tell us, yet inconceivably tenuous, though continuous, which we know as the luminiferous ether, boundless, infinite; but here and there solidified into chemical atoms, and these coalesced into suns and planets which seem huge in themselves, but which compared with the ethereal spaces in which they are dispersed, are but finite and relatively inconsiderable. Space is infinite, ether may be infinite, but the physical matter and substance of the worlds is finite, existing and active only locally, while the infinitude of ether in which it moves, and out of which it was made, remains passive, formless, silent, yet pliant to the electrical and luminous and gravitational forces which it has itself created. But when and how did this ether, here and not there, transform its weightless, homogeneous substance into the heterogeneous qualities and attractions which constitute matter? That is the problem, the riddle of the universe, for which we crave an answer. Was it chance? Was it God? Will Nature herself answer?

But I have said that we do not know what ether is. It is generally held to be continuous, like a fluid. But there are those—the famous

chemist Mendeleeff was one—who think it a gas. An English physicist, Doctor A. Wegener, declares that the gas is coronium, which appears in the extreme heat of the corona of the sun, and in the blaze of meteors and in the northern lights many miles up in the sky. Coronium has a combining weight many times less than that of hydrogen, and its own dispersive power would escape the attraction of the earth. It is suggested that it therefore spreads in space as a light-transmitting gas.

If so, if ether is merely such a tenuous gas as coronium, or ultimate electrons, thinly scattered in space, then it is not continuous; it does not fill the space in which it travels. If the amount of it is limited there will come a limit beyond which its atoms could not repel each other, and it would cease to diffuse itself. It would not be spread over all infinite space, and what is more important, it would be discontinuous, and there would be boundless interspaces which it did not occupy, but through which it simply passed. Yet even so it would be difficult to comprehend how the attractions or repulsions of the atoms of such a gas could be transported across the spaces between them without the existence of such a continuous substance as ether is usually supposed to be. I mention this view of ether as an attenuated gas simply to show that such a theory does not make it universal and infinite.

Thus far I have gathered the data for the con-

struction of a religious philosophy solely from lifeless matter, earth, sun, and stars, for I cannot think of them as possessed of life or will. Philosophers may imagine that atoms dance of their own choice, or that a stone falls to the earth by a sort of volition, but to my mind, which is of the common sort, that seems merely poetical, imaginative. Besides such dead matter there is living matter, plants and animals, that move under the direction of impulses that are not chemical. Only a briefer mention need here be made of the data of life and the data of mind, all to be treated of later.

The human mind, and the lesser minds of brutes, and the life forces of animals and plants have in them powers quite absent in dead matter, in water, rocks, and earth. Man has a mind, what he sometimes calls his soul, and herein he possesses what differs radically from the chemic force of the sun, less radically from the lesser minds and wills of the beasts, and radically yet again from the power of life which we observe in the vegetable world. He thus has two powers utterly different from those of the purely physical world: he has life and he has thought. The atoms of physical matter move, but they have not life. They have their own chemical and gravitational attractions; they move under fixed laws, they gather their molecules into crystals, they shiver in earthquakes, they rush and flash in lightning

and storm, as planets they whirl about the sun, and they blaze in the stars; but it is all automatic, no act done by any will of their own. Nor is it by any life of theirs, for theirs is not a living force. Crystals grow, but not as plants grow. Their molecules gather, layer on layer, unchanged, and fill the rocks with regular forms; and the winter frost covers our window-panes with the simulacra of vegetation; but it is all the same lifeless, mechanical force, utterly unlike the growth of plants or the will of man.

Equally the thought and will and feeling of man are not found in the major part of the world which possesses life, the vegetable world. Life and mind we easily recognize as two different things. Man has both, plants have but one. We cannot believe—for we see no evidence—that the acorn swells, puts forth its two carpellary leaves, throws down its little roots, then sends up new and different foliage, grows and spreads into a mighty tree, through any voluntary action of its own. We call the strange, apparently purposeful, certainly directive movement which now controls its chemical and physical activities, which sends the sap upward and transforms it on the way into wood, and at the extremities into leafage and fruit—we call it vital force, for we must give it a name, although we do not at all understand it. The tree struck by lightning has no feeling of pain. The rose does not complain when it is

plucked; it has no fear, no pleasure, no will to grow. Even the sensitive plant is not sensitive. When the stamens of the barberry blossom touched by the leg of a bee snap against the pistil, or the leaves of the mimosa contract when rudely struck, or the lid of a pitcher-plant shuts down when an insect is caught within, it is no more an act of will than when the trap snaps on a mouse. There is a force we call life in the plant, but no will.

And man differs from the rest of the animal world in that he has the new powers that belong to mind in a far higher degree than do they. In man and all the animals appear all the chemical and physical forces in full exercise; all the vital forces, and in addition those other new powers which we call mental or spiritual. The lower forms of animal life can feel; they can to some little or some greater degree, think and will. Even the minute bacteria, even the fixed coral polyp can move somewhat by its own choice. It is only the lowest grade of thought, but it is thought all the same, what man has, but in a far lower degree. Half-way between the polyp and the man stand the dog and the elephant, and the chimpanzee, whose intellection seems the parody of that which we possess, in which we are supreme and wonderful.

Consider the quality of what we call mind, for we have the habit of distinguishing it from the physical structure through which it acts, its func-

tions from those of the body. We suppose it to act somehow through the brain; other peoples have supposed it to be seated in the heart or the liver or the kidneys. "Thou triest my heart and my kidneys," says a Hebrew psalmist. Its powers are very different from those of the body. It moves the limbs; it is a master and the body is but a tool, as really so as is a hammer or a plough. Every such act is performed wholly by use of physical laws, but the control is not physical. It not only uses the body and other bodies, but it can be intensely active without visibly using the body at all, in hard thinking while absolutely quiet and physically at rest. While it commands the body and directs physical movements its own activity is very different from those physical movements. Its activities are intangible, imponderable, belonging to its own unique sphere, that of thinking, feeling, and willing. To be sure, there are certain physical modifications related to its activities, increased circulation of blood to the brain, and consumption of brain tissue, but the flow of blood to the brain, or the waste of brain tissue, is not thinking or feeling or willing, but something very different, belonging to a different plane, that to which we give a separate name, and call it mental or spiritual to distinguish it from the merely physical or vital. Whether or not this mind, soul, or spirit is a real entity, separate from the brain through which it acts, is to be

considered later, but for the present I observe the fact that it has been the usual belief of the race that our mental action is not a mere function of the body, but that it belongs to what we call mind or soul, or spirit, something that is not material, and can properly be thought of as detachable from the body.

These are the data, matter, life, and mind, of which we must inquire whether they bring any message of God.

CHAPTER III

HAD THE UNIVERSE A BEGINNING?

THE one great question to be answered, if possible, in the study of nature about us is, as I conceive it, whether the conditions of nature are such as to indicate that it originated, moves, and changes by its own inherent force, of necessity, so that it always was, in some form or other, and always will be; or whether there is evidence that it did not always exist; or, at least, if it did exist from eternity that there appears within it evidence of forces not of itself, acting upon it, which have caused or modified the movements of which we have knowledge. In the one case nature is self-existent, eternal of itself; in the other case it is contingent, created, controlled by some superior outside power. To this great question I now address myself.

In this study the first great basal fact is this: that because something exists now something must have always existed. That something which always existed may be the present nature, or it may be something on which the nature we know depends for its origin; some sort of existence there must have been from all eternity. For ex-

istence cannot come out of non-existence. Non-existence can create nothing, can evolve nothing. We cannot conceive of non-existence begetting existence. *Ex nihilo nihil fit*, that is a condition of thought. Everything must have a cause, in my philosophy, and in every one else's. I would not stop to try to argue what is an axiomatic law of thought. The cause of a present existence may be in itself; or this present existence may be contingent, dependent on something that previously existed, as a house depends on a carpenter. But because there are objects now existing there must always have been actual concrete existence of some sort.

That which always existed, and out of which the present course of nature has come, must have been actual concrete existence, something more than abstract imaginable relation. Such primal source of all things, standing under everything else, out of which nature has come, if nature be not eternal, can be no abstract quality or relation, like a geometrical truth, but must be something concrete, comparable, in matter or in mind, with the nature which is hypothetically supposed to have sprung from it. It is not such a merely dependent, relative truth as that the three angles of a triangle are equal to two right angles, nor is it anything like abstract virtue, which itself depends on the relation of one sentient being to another. Nor can it be such a category as time or space,

about which there is nothing concrete, and which can have no generative force. The fact that real matter, life, and mind now exist is proof that either they always existed, or that something equally substantial and real out of which they sprang always did exist.

And, once more, that something which existed from before all eternity, which had no beginning, no pre-existing cause, must have found in itself the cause of its existence; it is self-existent. Its own nature requires it to exist. We can go no further. We cannot explain why or how that exists which had no beginning; and only know that because something exists now, something must, *must* of its own necessity, always have existed, whatever that something is, matter or mind. We wish to learn whether existing nature gives us any indication what it is, matter or mind.

I do not see that I have any right to judge whether that primal source and origin of all things, self-existent, of its own necessity, was material or spiritual, matter or mind, or whether both so existed eternally, or even both were fused in one. Matter and mind cover all the existences that we know or can conceive of. This is the dualism of nature, and I can see no reason for questioning the actual existence of both, which we know equally by their diverse qualities, one of bulk and weight, the other of consciousness and will. And self-existence we cannot comprehend.

We can know the fact, but how or why I cannot know. I cannot venture to say whether the self-existent and eternal should be matter or mind, for why anything should exist at all is past my understanding.

Let no one tell me that the argument thus far presented is abstract or scholastic. I deny it. It is plain and simple, level to the comprehension of any one. It is that, because something now is, something always was, call it nature or call it God, and that what existed always, which had no antecedent cause, must have existed in the nature of things, had its cause in itself, was necessarily self-existent. This is simple, almost axiomatic, but it is large, grand. It takes in all necessities and all infinities. It carries us backward along the track of that measureless duration which has no beginning of bound. It brings us face to face with the primordium of nature, with that source within whose grasp was the vastness of the constellations, and the vaster mystery of the intelligences which inhabit and rule this planet, and we know not how many others.

It is so utterly impossible for us to comprehend a past eternity, and to conceive how out of a past eternity the present time could have been reached, that it is of no use for us to speculate over it. This fact we know, that out of a past eternity the present moment has come, and equally we know that out of a past eternity has come the

cosmic course of time which includes all the unknown history of the present universe, running back we cannot guess or imagine how far. Nor do we need in imagination to set a time within the current of eternity when the primal source began to generate the contingent existences. It may always have done so, from eternity, so that in such a case nature, as we now know it, may be as eternal as its supposed eternal source, but yet just as contingent on its ever-acting eternal source as if it had begun to be generated at a definite point of time.

And yet let it be clearly understood that no primal origin of all things could have existed always, from eternity, except as it existed by some necessity within itself. It did not come to exist by chance. And let it be further seen that such internal necessity of self-existence could be limited by no time or place, for there would be the same necessity of existence at one time as at another. What exists of its own necessity must exist always, must exist everywhere. We cannot think it otherwise. A truth in geometry cannot be true in London and false in Peking. Any inherent necessity must be universal. This principle will supply our test in the study of present forms of existence. What does not exist everywhere and always does not exist of necessity. It is contingent, had a beginning, had a cause.

And, first, does the ether, out of which, under

the current belief, all matter is derived, give evidence of being self-existent and eternal, or of being contingent and dependent on a cause?

Up to within quite modern times we have not known that there was such a thing as ether. When poets spoke of ether and the ethereal spaces, they meant the upper air. But after it was learned that it takes eight minutes for light to reach the earth from the sun, there came to be reason to believe that there is an elastic medium in space which carries light by its waves. We have later learned that this same medium which we call ether can carry our wireless telegraphy. Our physicists do not certainly know what ether is, but they know it *is*. The prevalent belief is that it is a continuous substance, different from all other matter known, hardly material, utterly imponderable, not subject to the attraction of earth and stars, incompressible, perfectly elastic, absolutely filling all space. It is in a sense actually material, though hardly matter itself, for out of it all matter is made, and, what is most important to our discussion, it is universally existent.

So far as we know there is no space where ether is not. It is in the depths of the earth, within the constituents of the most solid rocks and metals, even within our own bodies. We live and move in it more truly than we live and move in the air about us. And there are no distant spaces, and none intervening, so far as we can dis-

cover or guess, where ether is not. That light comes to us from the sun is proof that some atomic motion of intensely heated particles has communicated their motion to ether; and this intervening ether has brought the motion to inconceivably small rods in our optic nerves. But the sun's ninety-five million of miles distance is insignificant compared with the distance of the few fixed stars whose distance astronomers have measured, and whose light must travel through many years unwasted before it reaches us; while countless other stars are many times more distant, far beyond any angle of parallax which we can measure. Yet all through these distances on every side of us there is ether, ether unbounded, universal.

And, apparently, far beyond the distances which are embraced in our stellar system. For the stars are all moving, like our sun, ten or twenty miles every second in space. In the millions of years during which we know our solar system to have existed it has been moving forward into new space, and yet we know—for the record of life in the lower strata proves it—always enveloped in ether. So the whole system of stars, whether moving individually or by a common motion, wherever they move forward, do not escape the ocean of ether.

Is then this ether infinite? Has it no limits beyond the reach of our stellar universe? We know of none. If it can reach so far, we can see

no reason why it may not reach beyond all conceivable bounds of our universe or all universes. It would appear to us that as space must be conceived as absolutely limitless, so ether appears to us to fill and occupy all this limitless space, and to be equally infinite. And if infinite in space, why not equally limitless and infinite in time? We cannot say. Ether everywhere co-ordinate with all space; ether always, co-ordinate with all time past and present, that is the apparent conclusion to which our present knowledge conducts us.

If ether is, as usually believed, a continuous form of subsistence absolutely filling all space as water fills the ocean, filling it completely, without interstices or vacancies, and if, as we may well believe, it always has thus existed, then for all we can judge thus far, it may be self-existent. We do not see that it, with such a constitution, carries any evidence that it had a beginning and was created.

But it is not quite settled that the ether is such a continuous substance. I have mentioned that a famous Russian chemist believed it to be an excessively thin gas; and that this theory has lately been developed by Doctor A. Wegener, who finds that coronium, a hypothetical gas many times lighter than hydrogen, shown by the spectroscope to exist in the corona of the sun, is discovered also in the flashes of light from meteors

and the aurora borealis. Its dispersive power would be such that it would escape the attraction of the earth, and it would spread itself in the spaces above our atmosphere. Doctor Wegener, as previously said, believes that it is coronium that is diffused everywhere, and that it is the light-bearing medium. If such is the true theory, then it is all the ether there is, and it is corpuscular, like the other gases, and does not fill space continuously, but occupies an excessively small portion of it; and then it is not self-existent, for it does not exist everywhere, but is contingent and had a cause for its existence. Equally all other theories such as that which denies its existence and holds light to consist of emitted particles, can allow no evidence of self-existence. For the present we must incline to the prevalent view that ether is continuous, exists everywhere, and for all we can know may exist eternally, by its own inherent necessity, the *primum mobile*, the source if not the cause of all things, even as Plato conceived of space not as a void but a plenum, self-existent, eternal as God, and the material out of which all things are made. The most that we can say is that for all we can judge from the evidence open to us, ether may be necessarily self-existent and eternal, as self-existent and eternal as the Being about whose existence we are making search, and whom we call God. Is ether, then, all the God that exists? That requires further study.

CHAPTER IV

THE STELLAR UNIVERSE—HAD IT A CAUSE?

IN the previous chapter I found myself unable to discover in ether, the one all-pervading substance out of which apparently all things are made, any sure evidence that it has a Creator, that it is not self-existent, as eternal as the God of religion whom we have been taught to look upon as the Source and Creator of all things. I now turn to ask of this material world on which we live, and of the worlds which astronomy tells of, whether they had a beginning and a cause. Is it true that "the undevout astronomer is mad"? We must consider the material universe as we know it, in its masses and in its molecular constitution. What has such matter to tell us of its self-existence or its contingency?

And, first, we find matter massed into huge planets like our earth, or into vaster suns and stars. If they are self-existent and eternal they must carry the evidence thereof. They must show no time limit of existence, and they must show universality in space; for what is self-existent by its own necessity, must exhibit that neces-

sity always and everywhere. It cannot be necessary in one part of space and unnecessary in another part of space. It must fill all space as does the ether as far as we know; and equally it must comprehend all time—otherwise it has a cause; it cannot happen by chance, out of nothing.

That planets and suns do not fill all space is the fact. Matter is not everywhere, unless ether is matter. The suns and planets are separated from each other by vast interspaces, so that their own bulk, big as it is, is inconsiderable as compared with the vacancies between them. So distant is the nearest star to us that its point of light can be enlarged by no telescope. Matter at its best fills, or appears to fill, only limited spaces like that occupied by our earth or our sun, spaces where are aggregated rocks, earth, air, vapors; but outside of them in spaces immeasurably greater is nothing, nothing except as ether is something. If matter exists necessarily, there could be no vacant spaces. It would exist everywhere the same. Instead of that it exists exceptionally. It therefore exists contingently, not necessarily. For existing as we see it, it must have had a beginning, a cause outside of itself.

That is proof sufficient, so far as space is concerned; but, for fuller consideration of the great question, let us also ask what are the facts accessible to us as to the existence of the universe of matter in time. Can we assert or deny that it

has always existed in time? This question does not allow a short answer, as does the question as to the necessary existence of matter in space; for the fact that matter does evidently not exist universally in space is itself conclusive of its contingency.

We see the heavenly bodies in two states, one intensely heated and emitting light like the sun and stars, the other not luminous, refrigerated, like our earth and moon. We know that the earth was once a molten mass like the sun; but it has cooled down unmeasured ages ago, though still heated to its centre. We know that the larger planets, like Jupiter and Saturn, have not yet cooled down so completely as has the earth, and are surrounded by a thick envelope of vapor which does not allow their solid surface to be seen. When we turn to the stars we find that they appear, so far as we can see them, to be in the same condition as the sun, molten masses of fire. But they are not all in quite the same condition; some are larger than others, some hotter than others, showing different stages of condition, as proved by the spectroscope. Then there are in the heavenly spaces invisible stars or planets which have cooled down, like our earth, till they cease to be luminous. We know it because we have variable stars, whose light is temporarily obscured, as if by some intervening lesser planet or companion star that has ceased to emit light.

That there are such we know further from the occasional appearance of temporary new stars. They are explained by the coming of two invisible stars, or one of them invisible, together, drawn by their mutual attraction. Their collision raises them to enormous heat, and they become visible. The conclusion is that in the stellar universe there are stars of all stages of condition; multitudes that are like our sun, hotter or not so hot, some of lesser heat and dimmer light, some quite extinct as luminous stars, and for aught we know there are dead suns more numerous, perhaps vastly more numerous than the molten, visible suns. This much is clear, that the suns, as we know them, have a temporary existence. They have had a beginning in time as stars in their present condition of visibility or invisibility. For each one is giving off heat constantly and receiving none, or next to none, from other stars. Our sun is cooling down, and in the course of time must itself become a dead sun, as invisible to the possible inhabitants of the planetary system of Sirius, if such there will be, as is the earth. And the same is true of Sirius and every other star in the heavens. Every one must have had a beginning as a star, because the process of cooling is not completed, and the past eternity of time is sufficient to have completed it if it had had no beginning. The stars, as stars, are contingent in time, as well as in space.

But this does not quite settle the question, for the fact that we actually see before us new stars appearing in the heavens is evidence that a dead star may be revived, and renew, like the phœnix, its existence. If once or twice in a century we see such a tremendous creation in the heavens, we do not know but that in uncounted past eons every star we see was thus created, every star suddenly bursting into flame, and then in the process of ages cooling its heat, dimming its fire, until it again becomes invisible and dead, awaiting its turn in a fresh collision to repeat the course of history from secular heat to secular cold. This at least we are sure of, that every star we see, which has not yet finished its course and become invisible, has had its beginning as such a star in a definite past time, for it has not yet completed its range of progressive relapse. Such is the case with our sun, with every star. The mathematician can calculate from the present heat of the sun and the rate at which it loses heat how long it will be before it becomes extinct, and so for any other star if he can know its conditions. Each star is on its way to a state which it has not yet reached, but which it would have reached if it had existed from eternity. A multitude of stars have, in all probability reached that stage and to our eye become extinct. All had their beginning; none are eternal.

But we may ask, if the separate stars have each

had a beginning in time, is that true of the system of stars as a whole? May it not have been repeatedly and perpetually renewing itself? This requires consideration.

I have spoken of the stellar system as single and unitary, after the hitherto usual manner among astronomers. Lord Herschel knew that stars were in motion, and he conceived them as all revolving, like our planets, about a common centre. But at present the most advanced students of the starry heavens find not one, but two systems of stars, moving in different directions, coming out of different portions of space, and now entangled together. The stars in the Milky Way belong to one system that has younger stars, showing helium lines, while the other system is older. This gives us a different and startling view of the universe. With such diverse movements in the two systems there is danger, such as there was not before, of the approach of one star to another, as the course of a star in one system might approach the course of a star in another. This explains the genesis of new stars, and provides a way for the regeneration of exhausted stars and the continuance of the systems with their light and heat. The two approaching dead stars, that have in the course of countless ages lost their heat and are thus invisible, happen to come within the reach of each other's attraction, and meet with a velocity of four hundred miles a second; but,

having each their own proper motion, they may not meet head on, but graze each other, breaking off portions of each which burst out into the most intense heat and dissolve in fiery vapor, forming a new star; while the main portions of the two are likely to fly away on their altered courses, losing their velocity by the backward pull of attraction, and are lost in space, while the *nova*, first expanding into a nebula, then loses its light and ultimately disappears to sight. Thus we seem to see new stars produced, and such may be conceived to be the cosmic origin and course of all the stars that we see move through the sky. But, even so, it does not seem likely that our universe of visible stars could indefinitely reproduce itself; only a small fraction of stars approaching would actually collide. The comets do not fall into the sun, but diverge and go on. So most stars visible and heated would escape each other and continue to give out their heat and ultimately become extinct. That this has not yet occurred seems to be some proof that the stellar system, or systems, had a beginning.

But there is a yet more serious point of view. If there are two systems of stars, as Kapteyn and Professor Boss tell us, then the universe is not unitary but dual. The two systems can hardly be conceived as coming into existence together, out of any necessary inherent force—each had a beginning, and a different contingent occasion of beginning, whatever we may call the source.

These two streams, or systems, of stars, we are told, are of different ages—one has newer stars than the other, has stars with helium lines, while the other has none. Its stars have not through countless ages been regenerated whether by collision or by the absorption of nebular matter, or whatever the original world-stuff may have been. If one is older than the other, and is further along in the line of extinction, they had each a beginning at different times, and a separate contingent source of beginning, whatever we may call that source. Nor does it make any difference if we conceive of an infinite number of such systems far beyond our ken, for they exist separately, out of forces acting individually and not universally, and so not of necessity but contingently. And contingency means some exterior force, directing, controlling, whether we call it God or not.

I think that the nature and direction of movement of the stars in the two swarms has a bearing on our subject. It was conjectured by astronomers, before the existence of two separate streams of stars was known, that they had all their orbits, and were revolving about a common centre. That does not now seem probable, and the fact of the two swarms coming together seems to negative it. At their enormous distances gravitation could hardly hold them to a common orbit; and a common orbit of all the stars would prevent collision. The moon is held to the earth by a force equal to a steel cable fifteen or twenty miles

in diameter; but attraction diminishes as the square of the distance, and the attraction of one star to another, and to their common centre would be insignificant as compared with their enormous projectile momentum. If, then, they are moving directly through space and not in an orbit, they must have passed through billions and billions of miles of space, and that affords likely proof that ether is infinite in space, for the strain of ether is supposed to be the source of all force. Another conclusion is that a swarm of stars not moving in orbits must even by slight attraction be gradually drawn together, and in time will, unless they have diverse velocities so that they will separate from each other, be brought to a common centre. But this has not yet happened. The fact that they are still separate while still retained in their swarms, and are not yet drawn into one mass, is evidence that our stellar universe has not existed from all eternity, but had a beginning in time as well as a limit in space, and so is not eternal and self-existent, but had a cause outside of itself.

This indication is from the side of motion. We may consider it somewhat further from the side of heat.

It is the nature of all other forms of energy to be transformed, under the well-known laws of the conservation of energy, one into another and without loss. But when any other form of energy is transformed into heat, it can then be dis-

sipated and lost. Thus a hot body is constantly giving out heat, whether a candle or a sun. Its heat radiates into space, and may be captured by some body which it meets, or it may be lost because it meets no object to absorb it. Thus the earth and other planets intercept a little of the heat radiated by the sun, but most of it passes into space, and is dissipated and lost. Equally every star possesses its individual quantum of total force, or energy, of which one part is its proper motion in space, say a dozen or more miles in a second; the other is its heat. Its heat is being constantly dissipated; it passes off into space, and at last will leave the star in the condition of absolute cold, possessed of no force except its motion in space.

Thus the total amount of energy in the stellar universe represented by heat is certainly being dissipated, and if not regenerated in some way will be finally exhausted. The universe will run down; the stars will all be dead stars. But, as this has not yet happened, it must follow that the universe had a beginning in time, and therefore some cause for its beginning.

One way, however, in which it might occur to us to escape this conclusion is, as already indicated, by the generation of fresh force by the attraction of two approaching and colliding bodies. But this raises the question whether there is in the case of such attraction any real addition to

the total energy of the universe. Does it contradict the law of the conservation of energy? From any source, like the attraction of gravitation, can dissipated energy be restored?

The attraction of gravitation is the greatest of all the mysteries of physics. We call it gravitation, but giving it a name does not explain why an apple falls to the ground. We know of no explanation. We only know that it does fall to the ground, and that in every fraction of an instant in its fall it gets an increment of its force and velocity. The earth does not touch it; nothing does touch it except air and ether. Something must move it that touches it, but it is not air that does it, for it falls faster in a vacuum where there is no air, only ether. It seems to follow that ether moves it, either pulls it or pushes it, but why or how we do not know. I suppose that ether is the great storehouse of energy which supports the whole universe. I suppose that when an apple falls to the ground, ether moves it, or ether-strains, like the strain of a rubber band, pull or push it; that when the moon or earth is held down to its orbit ether-strains do it. And I do not see that this force has come through any transformation of any previous force. We speak of potential energy, which is simply the expression for the amount of attraction which would draw an apple downward if it were free to fall from the tree. It is measured by what we call

weight, and its amount depends on its distance from the attracting body.

Now, a great gain in kinetic energy is acquired when two stars moving at the rate of ten or twenty miles a second approach each other until their velocity is increased to perhaps four hundred miles a second; and I cannot see that any corresponding amount of energy has been lost to balance it. It would seem that this new energy has been provided out of the inexhaustible source of all energy, the force within the ether. And this new energy of motion is being transferred by the collision of two stars into vast amounts of heat. This added energy thus created might in a measure balance the total energy lost by the dissipation of heat; and in this way the argument for a beginning in time might be more or less invalidated. Yet it is not clear that the constant loss of heat would or could be thus balanced and restored. The countless stars are giving out heat constantly, while the cases of new stars are not only few and rare, but so far as we have recorded them they are temporary. They soon fade away. They seem to have added little to the sum of energy in the universe during their brief existence, while the loss of energy by the dissipation of heat is constant and enormous.

In another way we could imagine a condition in which dissipated heat would be restored. If we could think of ether as limited in space, and its

limits a sharp wall, then dissipated heat might be reflected back again; yet, even so, only an infinitesimal portion of this reflected heat would be caught by the stars, unless we were allowed to conceive of the dead stars as so numerous as to fill the whole sky. This is so improbable and so destitute of evidence that we may dismiss it from consideration. Even so, the heat restored would leave the stars still invisible and dead, and would only increase the argument for the final extinction of the stars yet visible to us.

Thus the conclusion derived from as wide a study of the evidence as our present knowledge of the stellar universe yields to us would make it appear pretty clearly that this universe must finally expend its energy and run down like a clock. The fact that, notwithstanding all changes and renewals, it has not yet run down is evidence that this universe had a beginning in time, and therefore had a cause for beginning, a great Cause outside of itself, some such cause as we have been in the habit of conceiving under the word God. The conditions of time equally with those of space indicate that the stellar universe does not exist by any inherent necessity of its being. It is limited in space, and it appears to be equally limited in time. It is finite, contingent, conditioned, had a beginning and a Cause.

CHAPTER V

THE ATOMIC CONSTITUTION OF THE UNIVERSE

AFTER having considered matter in its masses, as worlds and suns, I return to question it as to its constituent atoms. Do they give any testimony either as to their necessary existence or as to their contingency?

And first, what are these chemical atoms of which all things are made? They are some eighty in number, or have been so regarded until lately, ultimate atoms, such as oxygen, hydrogen, carbon, gold, iron, and the rest. How long they have existed we do not know, but that they do not exist by any inherent necessity we know with certainty from the fact that they are, each one of them or all of them together, strictly limited in space, like the worlds that are made out of them. No one of them occupies all space. Where one of them is the rest are not. They occupy a relatively small, an exceedingly small fraction of all space. They are themselves excessively minute dots, or points, within surrounding space, and, as has been said of them, they have the appearance of being manufactured objects. Because they are such,

because they do not exist everywhere by their own necessity of existence, they are not eternal—they had a beginning in time, a cause.

We further know of certain individual chemical atoms that they have not always existed, but had a beginning. Radium and several other elements that have a high combining weight of over two hundred are constantly and slowly disintegrating, breaking up by emanations into elements of smaller combining weight. Thus radium gives off helium, and uranium and thorium also are unstable and give off their products. But they still exist unexhausted in the earth. They are steadily losing bulk, but are not all gone. They would have been exhausted long ago if they had always existed. They are not eternal; they had a beginning, a cause, in time.

But there is something more to be said of them. They are so related to each other in the increasing and regular order of their combining weight, under what is called Mendeleeff's law, that they appear to be themselves composite, made up of smaller ultimate, or more nearly ultimate, atoms. That such is the fact in the case of some of them is proved by their actual decomposition, as in the case of radium. This sends us back to the question whether these smaller and perhaps original atomlets are made in time, or are themselves eternal because self-existent. We are told that there are a thousand of them in one atom of hydro-

gen, the simplest of all the eighty elements, that they carry each an electric charge, and that they escape as ions in chemical reactions. Now what are these apparently primal, infinitesimal electrons, as they are called, out of which the eighty chemical elements, and so the whole universe of earth and stars, are made?

It is not fully known, but the prevailing belief is that they are made out of the ether itself, and are of no different material and stuff. They are spoken of as perhaps whorls, vortices, little maelstroms within the ether; and they attract each other, and their combinations form the chemical elements, oxygen, carbon, and the rest, a thousand of them dancing about in one atom of hydrogen, and over two hundred times as many in a complex atom of radium. Why they attract each other and unite definitely in various sorts of atoms with individual qualities and powers we do not know; but we do know that every one of the eighty atoms is made up of these minuter electrons; and it is probable that these electrons are nothing else but points of movement, and so of force, in ether.

Now, ether we have found to be universal, filling, so far as we can judge, all space and, for aught we can judge, always in existence, from before the existence of all things. We can discover in its conditions no evidence that it is not uncreated, self-existent, and eternal. What can we say of,

these modifications in it, these whorls, vortices, or rings in it which we call electrons?

Precisely what we say of the eighty elements. They have every appearance of being contingent. They exist here, and not there. They are found in swarms in an atom of radium, in a molecule of water, in the mass of the earth, and in the thinner medium of the air. But nowhere that they are found do they fill the space. They have room to move in an atom of hydrogen; they are very widely separated in the air; outside of the atmosphere that surrounds the earth there are none. In the interstellar spaces there exists simple ether, unmodified, not deflected into that force which appears in the vortical electron. In the vast spaces between the stars are no atoms, no electrons. Only at rare places, where there is a star, do we find the force existing which has caused the ether to develop vortices, electrons, and these to combine into atoms, and these again into worlds. This fact is of immense importance. It proves that matter, as we know it apart from ether, has no inherent power of self-existence; for it has come into existence as electrons only at exceptional locations within space. Whether ether exists by its own necessity we may not know; we have no evidence to deny it; but we do see plainly that, however ether exists, it does not through any necessity of its own project itself into whorls of material electrons and atoms, for it does not do

so everywhere. Matter, even in its most original, primal, subatomic forms, is exceptional, occasional, and therefore not necessary. It has a cause, an outside cause; a cause antecedent to itself, older than itself, and different from the material, the ether, out of which it is made.

An objection which might have been made to the proof that atoms had a beginning in time is not valid as against electrons. It might be said that atoms may have had an indefinite number of beginnings. It might be that when a dead sun is regenerated with the most intense heat all the chemical atoms in it might be disintegrated and resolved into their simplest constituent element, just as coronium not yet found on the earth appears in the most heated outrushes of flame in the sun's corona. Very true. It may be that in the collision of two dead or living stars the resultant heat would be so extreme that all the chemical atoms, even hydrogen, would be broken up and disappear. But the material out of which they are composed, the final electrons, would remain as they were until at a lowering temperature they were recombined. These ultimate electrons, no matter through how many dissipations they have passed, still remain the same local, manufactured, contingent points of force, carrying in themselves the evidence that they exist by no necessity in themselves and are not eternal, but have an exterior cause.

And here I cannot but stop to marvel at the mystery of the forces somehow imbedded in the charge of electricity that gives its push and pull to that infinitesimal, darting, approaching, retreating point—or shall I say whorl of ether which we call an electron. What makes it dance so? How could those countless atomlets, those infinite infinitesimals, all identical, having the same charge of force, combine in such strange ways? Why should a thousand of them appear to us as hydrogen, and twelve thousand of them, all just the same, appear as carbon, and thirty-two thousand as sulphur, and one hundred and ninety-seven thousand as gold, and two hundred and twenty-seven thousand as radium? And take carbon, composed of the same number of identical electrons, and yet somehow appearing sometimes as charcoal, sometimes as graphite, and again as diamond. If it was said long ago, before we heard of electrons, that the atom looks like a manufactured body, it looks so all the more now that we know what it is made of.

But I must recall myself to remember that wonder is no evidence. What is of evidence is the clear fact that these atoms, and these electrons that compose them, are not self-existent. They have a cause for existence outside of themselves, are contingent. Yet let us consider for a moment the strange fitnesses of these chemical elements, eighty or so of them, differentiated out

of undifferentiated electrons, made to combine, as of their own will in so many useful ways, as if the parts of a complicated machine or engine should of their own force leap to fit and adjust themselves into their proper places. These elements, all made of the same stuff, possess each their separate, discrete properties and attributes, their varying attractions, and are capable of combining with each other in definite proportions, producing new substances, each of which has its own peculiar qualities, acid, base, salt, whatever they may be, and these, again, fitted for new combinations under definite, fixed laws. Thus is created an extraordinary system of gases and liquids and crystalline solids, fitted to each other, all congruous, and each depending for its existence on internal congruities without which it could not exist. No one knows this so well as does the chemist, and the chemist wonders at the attractions and delicate adjustments which go to make up the crystalline and colloid substances, the liquids and gases, out of which this world and all worlds are made. I do not just now speak of the adaptations of these various substances for the sustentation of physical life—that is another matter—but of the amazing succession of beautiful laws under which all these things have been produced, all developing themselves or somehow developed, out of what? Out of the minute, identical atomies, of which atoms are composed,

and all depending for their production on the movements and attractions and forces which have come to be possessed by these final elemental electrons. To me that is quite as wonderful as is the profusion and the variety of life, vegetable and animal, which has filled the earth through all the geologic ages. And when I think that all chemical and all mechanical forces, and all the forces of gravitation, must have issued primarily, with all their developments, fire, wind, storm, thunder, tides, light, heat, electricity, the daily, annual, and secular movements and revolutions of planets, suns, and stars, out of the initial, infinitesimal but combined yet inexplicable forces that have somehow got attached here and there, only here and there, to electrons which have managed somehow to get segregated and concreted out of impalpable ether, all forming a nicely co-ordinated system of universal nature, the marvel has grown beyond expression. The most amazing, most unaccountable fact in all nature, next to the limited existence of matter, is the self-acting motility of the electrons. Nothing pushes them; like little demons they push themselves. Nothing stops them; they keep in perpetual motion. On their ceaseless motion which has the appearance of vitality, depend all other forces unless it be gravitation. These are the composite of the subatomic forces of these electrons. What makes them move? No physicist can tell. He can only say it is their nature.

Hardly less inscrutable is the combination of these ultimate identical electrons into the eighty diverse elements, with their following fixed and regulated combinations under definite laws of chemical attractions into the concreted diverse substances of more complicated order that compose the worlds.

Thus connected, thus dependent, the universe is all the same at bottom, one system, composed of the same electrons, the same chemical elements, creating the same substances, under the same laws, in all worlds, to the most distant "reach of the outmost sun through utter darkness hurled." Is this all chance? But we know there is no such thing as chance. Why did the whorls, or vortices, or strains, that made the electrons all come alike, separating by regiments to form atoms of hydrogen, and by tens and hundreds of thousands to form other elements? Why do they carry the same charge of electricity? Or if there are two kinds of electricity, one positive and one negative, why two? That makes it all the more wonderful and the more evidently contingent.

From whatever point of view we look at our universe, electron, atom, molecule, or mass, earth or stars, our total survey brings us to one conclusion, that all is contingent, that all have at some point of time come into being, that all have had an external and not an internal cause for existence. What that cause is we have not yet found out, but this seems clear, that the material universe,

as we know it, is not self-made, self-existent, eternal, but is dependent for its existence on something that went before and had the power to produce it.

Was that pre-existent something that had power to produce it the ether, which is the material, we are told, out of which all these things are made? It clearly is not the ether. To be sure, the ether appears, so far as we can judge, to be infinite in space, and may be equally infinite in time. But it is essentially material, has material qualities, is transformed into material things, has no will to transform itself. Nor does it transform itself into resistant, concrete matter by any inherent necessity within itself, for it is transformed only occasionally and sparingly. The great stellar spaces remain as ether untransformed. Only in occasional and selected spots has ether been transformed into worlds; and this change has been made not by the ether itself, but out of ether by some extraneous power working upon it. And this whole universe of ours has been produced on one pattern, out of the same electrons and elements, under precisely the same laws, and of precisely the same materials. It is thus one universe, distributed in space, filling in its total of matter but the most infinitesimal fraction of the space in which it moves. It is all of it, all except ether, contingent, temporal, had its beginning, is localized in space, had some cause for existence apart

from itself or the ether in which it floats. It must go back for its origin to some other self-existent force, whatever it may be, something else self-existent besides the ether out of which it is made.

Something is eternal. We cannot comprehend beginninglessness in time, but it is a fact and we must accept it. Something always was because something now is. It could not have come out of nothing, for out of nothing nothing can be born. That primal something is back of matter and back of ether. It has worked upon ether selectively, acting upon it only locally and sparingly, giving definite movements and powers to its derivative electrons, but such powers as are fitted to form intricate combinations into atomic systems, many thousands of them moving in orderly arrangement in a single chemical element, and then combining further into all the forms of matter of which the worlds are made. Whether as electrons, atoms, or systems, they are not haphazard, they have the appearance of being manufactured, and they are organized into what appears to be an orderly scheme, as if prearranged by an antecedent cause, a cause that has will, that has intelligence, such a cause as is embraced in the term God.

CHAPTER VI

THE PUZZLE OF THE INFINITE

INFINITY is not a problem; it is a fact. It can be puzzled over, if we choose, but there it is, not to be denied, staring us in the face. It is of no use for me to puzzle myself trying to conceive the limits of the infinites. There are such things as space and time; I know it, and time and space are limitless, have no beginning and no end. I know that, too, and yet I cannot understand how out of that which had no beginning I could have reached this particular point in space and time. The difficulty is more about time than space; for space is static. I can in imagination go anywhere and find room. But time is not permanent, static. It is an infinitely broad current, an ocean without bounds, moving, ever moving onward, onward from back of all conceivable beginning. How could I have happed upon existence just now, in this little inch of endlessness, and my father in his inch, instead of my succession and his occurring an infinite million of ages back? But here I am, and why should I try to puzzle myself with the infinite past when I know for certain the present? Why

seek to track back to its source the beginning of unbeginning time? I may try to explain it to myself by thinking of time as a circle which has no beginning because it repeats itself, but that is fallacious. Time is no cyclic revolution. It is a sweep ever forward, never backward; never like the Egyptian figure of eternity, the serpent swallowing its tail. I am *here;* I am *now*—that fact I know, and the puzzle how I came to be here and now need not distract me from the fact. The fact of the infinite is simple and clear, easy to apprehend; but the how and why of it, its compass and extent, is past finite comprehension.

We come upon this puzzle of the infinite when it occurs to us to ask, When did the great prime cause begin to create the universe? Was it in time, or was it from all eternity? Our argument has shown us that all the forms of visible matter we know of are contingent, dependent; but it has set no time for their beginning, no time when electrons and atoms began to be concreted out of ether; only that the present forms of the worlds had a beginning in time; but we did not know how many times the stars and suns had died into the cold of frigid space and been regenerated as nebulæ and suns to "trick their beams" and "flame in the forehead of the morning sky."

Some great primal creative cause must have existed from all eternity. Now can we believe that this cause existed from an eternity before

creating, and that at a certain point in that eternity it began to create? It is not easy to think so. If it was good to create at any definite time it must have been good to create at any previous time, and what was good would have been done. It would seem likely that it would always create. And I might also say just as well that if it was good to create a stellar system in one portion of space, it would be good to create elsewhere. Apart from the inexplicable puzzle of a past eternity of time, which we cannot deny except by asserting a relativity of time tantamount to denying that there is any such thing as time, we can only say that the universe now exists, in time, and that its existence is not automatic, but depends on the force of some cause essentially antecedent to it, but whether antecedent in time, or only logically antecedent, as the rising sun is antecedent to the dawn, we cannot say. It may be that inasmuch as a great creative cause has existed from all eternity, it must have also acted creatively from all eternity. In that case we might properly conceive of the universe, not in its present transitory and cyclical condition, but in some form as eternal, as eternal as its great Cause.

CHAPTER VII

A UNIVERSE FITTED FOR LIFE

LET us now return for a little space to our own world, the earth, and ask a further question as to its composition as bearing on its adaptation for the residence of man, the lower animals, and plant life.

A world without beings to use it would not be worth while. It needs vegetable and animal life to make it useful. At any rate, we know it is useful because it supports such life. To be sure, we do not know that Venus and Mars have inhabitants. Very likely they have, for they have air and water. The moon has none, nor probably Jupiter and Saturn, and certainly not the sun. Yet planets that have none are of some value to us, and seem to be in preparation for the time when they may possibly be inhabited. But if not, they are yet not useless to us, and the sun is our mighty servant, the steward of all our life. While I presume there are innumerable inhabited worlds, yet if the earth were the only one the service to us on this little world of all the radiant heavens would not be unworthy, for I believe that an

infant's single will is of more value than the sum of all cosmic forces through all the celestial ages, so much is mind superior to matter. The question of the composition of our world as related to the uses of man then deserves consideration.

The fact is, that the world—earth, sea, and air—is made out of materials that fit it most nicely to the life of man, animals, and plants; or shall we say that our world of life has been evolved to fit the physical conditions that the earth presents?

The present actual composition of our world, its air, soil and seas, is one out of a countless number of permutations of elements, whether in their relative amount or in their presence or absence, which are conceivable, and of which only the present one would support such life as we see. A million others would be fatal. We may properly ask whether under other conditions evolution could possibly support life.

The earth might have been made all out of gold or silver or iron. Then there could have been no life. Or if we had all the present ingredients which we find necessary for life, carbon, lime, clay, nitrogen and all the rest, but only oxygen and hydrogen, or either alone missing, we cannot conceive how life could exist.

Of the many ingredients needed to maintain life as we see it here, I may take three as representing the rest, air, water, and carbonic acid. They

are exquisitely fitted to support life, unless life has been so developed as to make use of them. Could physical life have existed without them? Imagine the absence of water which fills the oceans and soaks the land, and constitutes the chief ingredient in both animal and vegetable life. No other liquid—and chemists know them—could take its place as the vehicle of life. Suppose there were no water, or think of any other liquid, sulphuric acid, mercury, alcohol, chloroform taking its place—not one of them has the neutral quality with the power of dissolving other substances in sap or blood. The fact is that no known liquid but water could sustain life. Then the great abundance of water gives a stability of temperature necessary for life, through its extraordinarily high specific heat. Its evaporation prevents sudden destructive changes from heat to cold, absorbing heat in evaporation, and giving it out again in liquefying as cloud or rain, and in freezing; otherwise the earth would be uninhabitable. Water is needed for life, and is fitted and provided for it.

Equally we cannot imagine life without air. In a vacuum it could not exist. No other gas or combination of gases would do. Just its properties are needed to draw up and support the evaporated water and give rain to the earth. The air is a mixture of oxygen and nitrogen, with a little carbonic acid which is poisonous in large quan-

tities, but harmless in small quantities. How happened nature to supply oxygen and nitrogen? Why not all nitrogen instead of four-fifths? There are many other gases, but not one that will support animal life except oxygen. Is it not extraordinary that just this gas should have been provided in the air, and in just the right dilution? No other would do. But may we suppose that if other gases had filled the place of air some other form of life than ours would have been developed, quite unlike ours? Certainly nothing made of flesh and blood. For we know these other gases. We know that life cannot and could not be supported in an atmosphere of pure nitrogen, which is too inert to form the necessary combinations. Suppose it were all chlorine or fluorine gas: it would consume everything living; or nitrous oxid or ammonia, or any other gas that can be mentioned, say helium or argon. Any one would be fatal to any form of life. Could there be living bodies not of such flesh and blood as ours that might have originated by evolution in a world of some other sort of air? It appears impossible. Other worlds have the same sort of chemistry as ours; and we know the gases and the solids as well, and they cannot cause growth. They can create crystals by the superficial deposit of layer on layer, but not vital growth. Only the unmaterial could live, what we call a soul. The surprising fitness of this one mixture in air of oxygen and

nitrogen for life is a fact which suggests intelligent purpose in fitting the world for life.

Carbonic acid, borne by the air and the water, is the third condition of life of which I would speak. It, too, has a special fitness for its place. Life fits itself to it, as it does to air and water; but it is equally true that they are primordially fixed in a fitness for it, as the hand to the glove, as well as the glove to the hand. Carbonic acid is everywhere in air and water, and supplies the substance of all plants, which retain its carbon and give off its oxygen, just as animals keep the balance by taking the oxygen and giving off carbonic acid. It is not easy to conceive of any form of vegetable life dependent on any other element than the carbon of carbonic acid. We have heard of living skeletons, but a body made up of bones could hardly live.

Can it be supposed that these three necessities for any form of bodily life, water, air, and carbonic acid—and many others might be mentioned—could have met together by accident, without purpose? Professor L. J. Henderson, of Harvard University, says that there is not one chance in millions of millions that the many qualities and unique properties possessed by water and carbonic acid which occur thus simultaneously in their elements, could have met, except through the operation of a natural law that connects them, whether called impetus, or natural theology, or

teleological purpose. To me all this amazing fitness seems most easily explicable on the assumption of a purposive Being antecedent to all matter and all physical law.

CHAPTER VIII

THE MYSTERY OF LIFE

IN previous chapters I have aimed to make it clear that our physical universe, whether looked at in its minutest atoms or in its total starry systems, gives clear evidence that it is not self-existent, but had an external source. Nothing exists by its own necessity, and nothing by chance. Some superior power is the source of physical matter and of physical laws. I now turn to that other and higher world of life, and ask what evidence it has to offer as to its origin. Do the familiar laws of chemistry and physics account for the first beginnings of life and for its development in the vegetable and animal worlds? In this discussion simply vital activities will be considered; the mental activities embraced in reason, instinct, and will are reserved for later treatment.

Living matter differs from inorganic matter in that it has a more complex structure, and in that it grows under new laws. It is made out of a few of the same chemical atoms, but chiefly of four of them, oxygen, hydrogen, carbon, and nitrogen; but these appear in much more intricate combinations than those dealt with in inor-

ganic chemistry. Thus ammonia, an inorganic compound, has a composition expressed by NH_3, four atoms, while hæmoglobin, an organic constituent of the blood has, according to Preyer, the formula $C_{600}H_{960}N_{154}Fe_1S_3O_{179}$, a total of 1894 atoms. Living matter also has the power of growth, not possessed by inorganic matter. It is not growth when a crystal of alum is enlarged by depositing layer on layer on the outside of it; but the plant or the animal grows by taking food within itself, and then changing it into vitalized matter. This requires new laws, while at the same time the physical laws continue in full force.

But it may be said, and has been said by many biologists, that there is no basal difference between purely physical forces and vital forces, that no definite line of demarcation can be drawn between them; that products once called vital are now formed by chemical synthesis. True, there are such products of vital action, crystalline in nature, like the alizarine of indigo. They are by-products of vital action, not themselves vital, incapable of growth, thrown off in the process of growth. The chemist may make them, but no master of the test-tube and balance has yet learned how to synthesize the ovum of a king-crab, or the prothallus of a clinging lichen, or even a single living, growing cell of which they are composed. Nature and science know the difference between the forces, equally but differently forceful, of

purely physical matter and of living matter. The one is dead, though its atoms are always in motion; the other has life and the characteristic evolutions of life.

This is a very serious and important distinction. And yet it is clear and must be recognized that every product of life is created under the control of chemical and physical laws. Herein lies the strength of the materialistic argument. The biologist's business is to observe growth and development, and he sees everything obedient to and accountable to known physical laws. Every change in a cell, every evolution in an egg, every conformation and transformation can be explained; everything except the directive impulse. Every chemical change in the composition of the growing seed, from starch into dextrine or woody fibre, follows physical law, is measurable and consonant; but no physical law will require the leaves of a seed to sprout upward and its roots to go downward. The directive forces of life use physical laws in everything, but as servitors; the directive force of life is behind.

I am compelled to believe that there is something more in life than the mere forces of chemistry and physics. Those forces can explain a star, but not a rose. The chemist and physicist can follow and explain everything—how the sap rises under osmotic law, the oxygenation of the blood, its traverse to and from the heart—everything

except just one thing, namely, what is the initial impulse that sets their familiar laws at work in a way so different, so superior to anything that those laws can do apart from life. Life stops, and those laws no longer in subjection act in their own free way, and the matter organized under life disorganizes in decay. It is the guidance, the direction, so palpable to create a plant, a bird, a man, which physics cannot explain.

It is of the very essence of life that it gives guidance, is purposive. This separates it from mere physical forces, such as the attraction of chemism. It has a previsioned end to achieve. It aims to create a tree, a man, then to keep them repairing themselves or growing to an ideal perfection. Out of the common sap the atoms distribute themselves after a preconceived scheme to organize into bark, wood, leaves, petals, stamens, pistils, seeds, just as we knew they would when we planted the peach-stone. That is very purposeful life. Life chooses, sorts, selects, directs, sees, and reaches a distant aim. Whence comes this outreaching, selective, directive power?

The mere biologist does not try to answer this question. He is content to see it, to state its laws and give names to the usual processes of life, and then he too often thinks that the naming of the law is an explanation of its force. An apple falls to the ground. We ask Why? and we are told that the attraction of the earth draws it. *Attraction* is a Latin word that means drawing;

and so we are told that *drawing* draws it; and so we have got nowhere. We have simply given a general name to a familiar fact; but the reason why the apple falls to the earth we have not learned. So vitalism, or vital force, is but a name we give to an observed order of processes, and, put into English, it means nothing more than life. It explains nothing. Its marked character is its foresight. This prevision is everywhere, in the egg, in the chick, in the bird, and no biologist can explain, he can only describe the process. The latest biologists are coming to see that physics cannot account for life, which is a new and added directive principle. Says the distinguished Doctor Anton Kerner in his "Natural History of Plants," as quoted by A. R. Wallace:

I do not hesitate to designate as "vital force" this natural agency, not to be identified with any other, whose immediate instrument is protoplasm, and whose peculiar effects we call life. The atoms and molecules of protoplasm perform the functions which we call life only so long as they are swayed by this vital principle. If its dominion ceases they yield to the operation of other forces. The recognition of a special natural force of this kind is not inconsistent with the fact that living bodies may at the same time be subject to other natural forces.

Again he says, speaking of the wonderful processes connected with chlorophyll:

What is altogether puzzling is, how the active forces work, how the sun's rays are able to bring it about that the atoms of the raw material abandon their previous grouping, become displaced, intermix one with another,

and shortly reappear in stable combinations under a wholly different arrangement. It is the more difficult to gain a clear idea of these processes because it is not a question of that displacement of atoms called decomposition, but as to that process which is known as combination, or synthesis.

This directive and selective force which we call life appears to be outside of and above the laws of inorganic nature. Physical nature has no such power. We know molecules drawn together into geometrical forms under mechanical forces which we do in a measure understand. But in those forms there is no such synthesis. We cannot imagine such blind and purposeless forces performing such purposeful combinations as are necessary to restore the lost leg of a lizard, or to create buds and send out suckers from the spot where the bark of the tree is bruised. Haeckel saw the difficulty and tried to explain it in a meaningless way. He postulated will in the form of an unconscious directive force lodged in every atom, its unconscious soul. But that is so utterly void of evidence and so utterly contradicts the universal sense of the race that we must dismiss it. It is easier, instead of distributing an imaginary rudimentary mind to all the atoms of the earth and of all worlds, it is far easier to conceive of a really intelligent Mind that guides and directs the purposeful forces and selective movements in all the forms of growth and life.

If I understand Bergson aright he avoids committing himself to the recognition of such a supreme spiritual power, and tells us that there is in nature, at least in organic nature, in all its parts and from its beginning, a universal, primordial consciousness, a sort of undirected, purposeless yearning, reaching out after activity of whatever sort. It has no definite aim beyond movement in any direction whatever in which it is not met and hampered by inert matter. In its resistance to that hindrance of matter it finds some happy accidents and achieves some victories over matter which give it new forms and powers. If I understand Metchnikoff, his position is much the same, and to original inorganic matter he gives a sort of vital power. What they fail to tell us is how life first got its first restlessness of energy, added to that of the material out of which it was made. That there is any such primordial consciousness, any such embryonic volition in inorganic matter, or organic matter either, we have not the slightest evidence. Such inorganic matter is the very slave of law. It never resists the laws of physics. It shows no will. Nor do we see any sign of will in vegetable life, not even in the leaf that turns to the sun, nor in the stamen of the barberry blossom that strikes the stigma when the leg of a bee touches it. We do find it in animal life. The animal has volition, and therein has a new power; but that opens a new

field that needs consideration later. In all vegetable life, and in the constant re-creation of the body of animals and man, from the ovum to the birth, there is no sign of the lowest grade of will. The activities seem to be those simply of vital mechanism, acting surely, with all the certainty of the highest intelligence, but quite unconsciously and non-volitionally. We can go no further. To assume volition where none appears is arbitrary and illegitimate. There is teleologic activity, everything tending to its end, but all the activity is fixed and hardened into regulated law. But law is not force, has no force, is merely the statement of what some force which we do not understand but which we call vital force does. If a God is not otherwise excluded it seems to me reasonable to conclude that this force comes from God.

If the powers of life are so utterly different from and superior to those of inorganic matter, one is forced to ask how dead matter came to get life. Physical forces can give us a diamond, a mud-bank or a star; vital forces can give us a lichen, an oak, a star-fish, and a man. Physical forces began to act we do not know how many myriads of eons ago; whether with the origin of the nebulous swarm out of which our solar system started, or how much further back in the first of the possible succession of repeated cosmic evolutions under which worlds exist. We only know that

as long as there has been matter in any form its material laws have been in force. But vital force had a beginning in a vastly later time, after the deposition of the Archean rocks and the quieting down of the boiling oceans. How happened it that this new sort of force was added to the old?

We cannot see that there was any tendency in the chemical forces themselves to develop into vital forces. Thus far chemists have been utterly unable to persuade chemism to blossom into life. Every possible way that ingenuity could devise has been tried in vain. I cannot deny that it may be achieved, but thus far the strong evidence is against it. The only present argument for the production of life out of physical laws rests in the inability or unwillingness to allow that any superior Power could have had a part in the rule of the universe. Life had a beginning on the earth after it had cooled down enough to allow life to exist. Some have conjectured that life began here by being brought on meteoric dust or stones. So far as we can know, all such matter, coming at an enormous velocity, is raised on meeting the air to a heat that would destroy all life. But even if fine dust could escape incandescence, that would only throw the question back to the world from which the life was brought. That solution may be dismissed. Life is not a necessary phase of matter; it had a beginning, had a cause—a cause, as it appears after immense investigation, not in

physical law but from some other source. We cannot well conceive of any such source other than that which by a crude process of reason the earliest races and religions have settled upon. If physical nature is not self-existent, had a Cause, equally the world of life, by its very origin in time, suggests such a superior, self-existent Cause.

We must suppose that organic life began on the earth as a cell of protoplasm. But what is a cell? It is a composite of such infinite complexity composed of so many atoms, so specially arranged, and possessed of such extraordinary powers, that it seems incredible that any ordinary chemical attractions should by any happy accident have produced it. It is made up of carbonaceous and proteid components, vastly more complex than any inorganic substance which either nature's laboratory or that of man can create. Then think of its powers, so utterly unlike those of chemism. It can take in outer inorganic matter, assimilate it, enlarge, and then subdivide itself. That is, it can *grow*. It duplicates its nucleus and breaks in two.

We can compare the growth of the cell with the nearest parallel we have in inorganic nature, the creation of a crystal, with its twinning, or its aggregation of crystals, and the smaller, often very minute ones on the surface of a larger one giving it a drusy quality. But the parallel is only superficial. In a crystal of quartz or alum or sugar

the molecule has a definite form, possesses definite, fixed polar attractions which give the crystal its definite shape, as each molecule attracts the next to its predestined place, each molecule being of a limited number of atoms. Thus the quartz crystal is silicon dioxide, SiO_2, having thus three atoms. Sugar has the formula, $C_{12}H_{22}O_{11}$, forty-five atoms. Each molecule attracts another just like it, and this again another, and each falls into the place which its polar attraction requires, thus getting a definite geometric shape. Two crystals can in their formation interfere with each other and form a twin crystal, or small crystals can be deposited on a large one; but in each case it is mere superficial aggregation, like added to like on the surface, by a very simple law of crystallization easily explained.

Very different is the case with organic life. A cell is the beginning of an organism, but it is excessively composite. It is made up of an envelope, with a nucleus, and filled with protoplasm. The cells differ, but they are all composed of hundreds or thousands of atoms in each molecule of protoplasm. Then it grows not by deposition from without, but by absorption followed by division from within, the very reverse process from that of the crystal. It feeds itself from without, absorbing its nutriment within itself, until it is ready to divide. And it has the remarkable selective, directive power of developing from the cen-

tral cell of the ovum into a fish or a bird or a man. The processes of growth are utterly different in the organism from what they are in the crystal, the movements of life absolutely diverse from those of chemical attraction, and the products are as different, one a stone, the other a man. Life takes lifeless matter, dissolves it, recreates it, overcomes it, subverts its laws and gives to its products a continuous self-productive, recreative, procreative, permanent force, utterly diverse from the inertness of the immobile products of chemism. Such a new world of life, not to be explained by physical law, suggests a Power outside of the physical which at the critical time introduced it into the world and gave it its extraordinary qualities.

There is only one world of inorganic matter and law, but there are two worlds of life, vegetable and animal. First came vegetable life, which takes inorganic matter and makes it organic; next came animal life, which must seek as its nutriment matter already organized. If it be a fact that vegetable life had its beginning in time upon the earth, originating here, and all efforts at securing spontaneous generation under the most hopeful conditions have thus far failed of success, the same is true of animal life. At some time, and in its lowest forms, animal life began to appear upon the earth, at a time subsequent to the appearance of vegetable life, on which it

fed. It was very different in its chemical structure, in the assimilation of its aliment, and in its development. One produces a fixed tree, the other a free-moving man. It is thus a new world of life, so that we now have two worlds of life, organized on separate types, these two and no more. They originate here, and in time, and successively. We might imagine a primordial cell with an accidental life impulse that might indifferently produce both vegetable and animal life, but so far as we can tell from geological history, and from the necessities of the case, the vegetable impulse was the first, and the animal came later. Why should it not have continued developing vegetable life? It would seem as if the introduction of a new and different system of life required interposition from without. Each of the two worlds of life has its own peculiar impulse, one producing the rose, the palm, the oak, and the other the shell, the bird, the man. To me it does not seem probable that these two systems have originated their own separate impulses, their own directive aims, to produce one wood, the other flesh and bone; the one to develop into the forest of oaks, the other into eagles and lions, and all out of the same forces that create the crystal. There is as yet no evidence to support the supposition. If we cannot absolutely deny that such may be the case, the suggestion yet seems plausible that some exterior power started the two new

streams of force and life; and the suggestion seems more than plausible unless we begin by the blank assumption that no such exterior power as we call God can exist. One may question and doubt about God, but how deny?

It is the selective and directive power of life that needs to be accounted for, which takes the same identical material and sends it on errands in different directions to do utterly different creative work. It is a comparatively easy task for biologists to describe the process of growth in an animal or plant, how from the germ in the ovule or ovum one change follows another until the cell, perhaps too small to be seen without a microscope, becomes the elephant or the oak. That satisfies and has to satisfy the botanist or zoologist. He can describe the process by which the contents of the egg segregate and separate until the chick is ready full-formed to escape from the shell; or how from the seed the radicle digs downward and the plumule mounts upward, and then how leaf succeeds leaf, and branches follow, and flowers, and fruit. But by what force or for what reason all this purposive reorganization takes place he cannot tell us, and he usually forgets even to wonder at the mysterious commonplace which it is not his business to understand. Because he knows that no ordinary chemical reactions can explain it, he calls it vital force, life. I insist that this force, so absolutely and teleologically selective,

which out of one sap or one blood directs its elements to go each to its own place and create so many different sorts of things, leaf, bark, wood, gum, oil, starch; or muscle, bone, hair, nails, skin —this selective force we cannot at all explain, any more than we can imitate the least of it, not a scale on the down of a butterfly's wing with our best skill in our best-furnished laboratories; and so we give it a name and call it life, and then are likely to think we understand it because we have given it an empty name. We observe all the phenomena of nutrition, assimilation, and growth, and then take them for granted, and forget to wonder why all the chemical atoms, oxygen, hydrogen, nitrogen, carbon, lime, manage to get drawn into just the right places to develop the cells wanted, and at just the right time. Ordinary chemical and mechanical processes cannot explain all this. They can do their part as long as life is present to direct them, but when life ends, although the plant or animal remains the same, the ordinary chemical and mechanical reactions assert themselves, and what was evolved under life is dissolved and decays. All the time there is an end in view, a new organism to be created, just as truly anticipated and worked for as when a man makes a mallet or builds a house. Nothing less does the egg do when it makes a chicken, or the blood when it repairs a broken bone. I say as Professor Anton Kerner has said before, that

this is no operation of ordinary chemistry, that it works only so long as the molecules of protoplasm are swayed by what we call the vital principle, but as soon as that is lost the same protoplasm can do nothing but fall under the forces of common chemical action. There are, so far as I see, only two possible theories for the origination and development of vegetable and animal life on the earth, one by the undirected, accidental attractions and repulsions somehow possessed by the ultimate electrons of matter, and the other by the purposed guidance and direction of a superior, self-existent intelligence. To my mind the latter seems the more reasonable and likely.

CHAPTER IX

FORESIGHT IN EVOLUTION

IN the present chapter I would ask the reader to consider some of the phases of evolution which seem to indicate foresight in preparing for processes or functions before they come into use, and therefore appear to indicate intelligent design.

Since the acceptance of the principle of evolution the question is no longer that of the Bridgewater Treatises, Does this or that organ, so perfectly adapted to human or other use thereby show evidence of design? but it is rather this: Could the blind and miscellaneous processes of variation ever actually have produced, without guidance, this or that organ or world? What we are in search of in this study is to discover whether there is such a thing as directive evolution, evolution not merely reaching out at haphazard and on every side, and then conserving its happenings when they become useful, but rather evolution also guided, directed by a master of nature. We are liable to err in our observations, and also to be prejudiced by our beliefs or disbeliefs; but there may yet be some test principles which we may apply for our guidance.

Under the laws of evolution we can conceive an organ or organism, belonging to an animal or plant, to be immediately useful as soon as it begins to appear in a slight degree; and then it is easy to believe that its survival value will lead to its further development until it becomes an important feature, of the species. That is plain evolution. But if there is a considerable period in the development of an organ during which it is not of use, but requires to be perfected, this will then appear to be a directive evolution, one that anticipates an end not yet reached, and which seems to imply some exterior and designing intelligence. In the field of life we may properly apply this test and its evidence will be of value. Such evidence there appears to be.

I will not here stop to dwell on the fact already referred to that every vital process has a forward look, that every drop of blood or sap, and every constituent of egg or seed moves to achieve a future end, just as in the body the phagocytes gather and proceed to absorb and destroy worn-out cells. I would here consider some more special examples of development which anticipate some useful end to come later.

Vegetable life anticipated animal life. Vegetable life does not need animal life; it can live alone. But animal life must have vegetable life to subsist upon; so vegetable life prepared the way for it. Animal life came into existence in the life

history of the world just as fast as plant life was ready for it. The enormous browsing animals of the Tertiary Period followed enormous plant development; and then, that they might not overrun the earth, but be properly reduced in numbers, there appeared the monster sabre-toothed lions and tigers, which happily became extinct when unarmed naked man appeared defenseless, except in his superior intelligence. All this fitting of time to time, animal to vegetable life, and the successive forms of animal life, each appearing in just the right succession of time, seems to suggest some directive impulse.

Not only does the order of the appearance on the earth of the successive forms of life suggest a forward anticipatory look and purpose, but we seem to observe the same thing when we consider the production of the parts and organs of the living body. The old argument for creationism drawn from the eye treated it simply as a mechanism, a wonderfully complicated and accurate mechanism, something far beyond what human intelligence could have planned, and it asked whether it must not have had an omniscient contriver. But evolution replied that sensitiveness to light began in the formless amœba, which has no differentiated nervous system whatever, that in the course of division and reproduction a certain portion of the structure became somewhat sensitive to light, and that there was produced in the

infusorian a pigment spot which was more sensitive than other parts. Then by slow degrees, through accidental favorable modifications of many generations, one improvement after another happened to be added, until at last we have the eye of the vertebrates, with all its marvellously accurate complexity of adaptation for the purpose of vision. But does not this put too much on the unpurposed action of evolution? The eye is an instrument composed of parts co-ordinated to each other. No one is of any advantage without all the others. The retina needs a crystalline lens to focus a picture upon it. The appearance of an imperfect lump of stiffer transparent fluid, the beginning of a crystalline lens, may be conceived to be of some advantage; but not unless at the same time, and in the same individual, there were a corresponding improvement in the constitution of the retina with its rods and cones fitted to receive and define the very imperfect image cast by the gelatinous lump not yet a crystalline lens. Every improvement in the lens requires in the same individual a parallel improvement in the retina. The two must coincide to be of any added advantage and be transmitted. But there is no likelihood that they will coincide by any happy accident. Just so with the other parts of the eye, the aqueous humor, the cornea, the iris; the evolution must be progressive, representing co-ordinate changes in all the parts, each follow-

ing the other, for any one change in a single part must be met by changes in all the other parts; otherwise there will be confusion rather than improved vision. This co-ordination is not to be expected in a single individual. Under the law of chances that is too much to ask. If the changes do occur simultaneously by a succession of those leaps which is called mutation, that makes it all the more evident that some guiding hand has directed it. The appearance is of design, a prearranged evolution of the eye.

But let us follow Bergson in going a little further than this. I have spoken of the vertebrate eye, that of the fish, the reptile, the bird, the mammal, and man. It is all one sort of eye, which may be conceived, if you please, as being the product of unpurposed evolution. But the mollusca have to all purpose the same eye. We may suppose the vertebrate eye to have followed in its creation a single line of evolution, and that the eye happened so early in the progress of the vertebrate from the primitive amphioxus to become fixed in its mechanism, that all vertebrate eyes, those of fishes, reptiles, birds, and mammals have the same structure. But how about the eye of the mollusk? The mollusk and the vertebrate separated, in the division of life, long before the eye began to be evolved. Mollusks and vertebrates are built on utterly different plans, and yet they have very much the same sort of eye, but

with a different origin of growth. The vertebrate's eye grows out of the brain, but the mollusk's eye, the same fashion of eye, grows out of the ectoderm, or outer covering. How does this happen? Here is a coincidence not easy to explain. This is not the only kind of eye possible or conceivable. Flies have a different eye with a multitude of lenses. The coincidence of the vertebrate eye with that of the mollusk is most extraordinary, not easy to explain on any theory of unpurposed evolution from accidental variations.

Then one thing more is to be considered as brought out by Bergson. The eye has its own separate source of growth in the fetus. It begins from the brain as its special root, as it does from the ectoderm in the mollusk. But in certain salamanders the eye can be removed, when it will regenerate itself from its normal root. But take away that root, and it will regenerate itself from another and yet another root. What has this to do with evolution? Does it not indeed contradict the law of evolution? For here the eye comes out of a structure other than that from which in the course of evolution it has been derived. It would seem as if there were a purpose in the regenerative growth of the system which looks forward to the end and jumps athwart the course of evolution. There is something directive and distinctly telic about it, something that suggests a divine superintendence.

Another very remarkable case in which in nature provision is made for a function before it is ready to be exercised appears in bisexualism, and that too appears in both animals and plants. In the lower organisms there is no sex, and reproduction is by fission. A cell, and equally the lower types, divide into two individuals. It would seem as if Nature would continue this method for the succession of life. And so indeed it does; for not only can nearly all plants be reproduced by buds or slips, but the lowest forms of animal life still use only the method of fission, while others reproduce themselves in part by parthenogenesis. But in the larger part of both the vegetable and animal world an intermediate step is introduced, that of bisexualism. Doubtless this is of great advantage in multiplying the chances for variation in the offspring, and thus for the advance of evolution. But is it not extraordinary that these two great kingdoms of life, animals and plants, so diverse from the beginning, should have forsaken reproduction by fission, and should have happened to hit upon this same sexual method of securing progeny, so that in most species of animals, if not of plants, there are none produced that are not the product of sex-union? Yet this is not essential, nor is it the primitive and natural way, which is by division. In not a few forms of life which propagate by sex-union parthenogenesis can be continued for several gen-

erations. In plants reproduction by division is familiar to all of us. The buds at the axil of every leaf of the tiger-lily drop off and produce fresh plants with no sexual union. Even more familiar to everybody is the reproduction of select varieties of plants and trees by slips or grafts or tubers. The potato, the tulip, the Concord grape, the Baldwin apple are examples. Any green twig of willow stuck in the ground will grow a tree. But this primitive and simplest method of propagation does not prevail. We see no reason why it should not have done so. It allows sports, new varieties, though less freely than is gained by sex-union. It has been replaced in both the animal and the vegetable kingdom. It would look as if there were some governing general design which chose this method of reproduction as best for the development of both vegetable and animal life. It looks like purposive foresight.

And all the more because the origin of bisexuality would seem of necessity to have antedated its use. There could not have been union of the two sexes before there were sexes. It would seem as if the purpose to have sexes must have preceded the appearance of the two. Doubtless the differentiation of the sexes was itself an evolution as it progressed, but in its beginnings it must have started before its purpose could be achieved; and so its course and beginning were directive,

but not self-directive. It appears as if an outside intelligence had planned it as a new method of life, and had then imposed it equally on both the animal and the vegetable kingdom.

The very appearance of bisexualism in either plants or animals, and much more in both, is a strange phenomenon. As already said, reproduction by division is the natural and simple way, while that by sex-union is new and complicated. In the plant it requires the creation of new organs, stamen, and pistil, creating the flower not before needed. And the two sex organs must be created before fertilization can take place. That is, they have come in anticipation of a new order of things not yet inaugurated. That means foresight, such as a plant does not have. The foresight must have been in some superior intelligence. The case is similar in the animal kingdom, but with this addition, that no longer is the sexual union unconscious and involuntary, brought about by winds or insects, but is the result of a physical passion or instinct. Nature creates this passion, for the sake of progeny, but the animal knows no more that it is necessary to preserve the race than do the stamen and pistil, the insect and the wind that fertilize the blossom. There are tribes in Australia equally ignorant. It is not man or the animal or the plant that has related the sexual act to propagation of the species. It achieves its end, but utterly unconsciously, without pur-

pose. But there is an end and a purpose which must reside somewhere, somewhere else than in the plant or animal.

Thus at the beginning reproduction by division held the field. Evolution moved that way. But an absolutely different plan broke out, needed for higher evolution, for another purpose not needed by bare nature, but needed by anticipation for the creation of superior forms of life and for man. The earlier method had been to make two out of one. The new method was to make one out of two. It was an absolute break from the path of evolution needed and introduced for an important distant purpose, that of progeny. It has the appearance of being anticipatory, prospective, purposive, and therefore the work of a superior intelligent being.

These two cases of the eye and sex are but illustrations of the anticipative appearance of organs and structures that prepare the way for subsequent uses. It is a rule of nature. One may say that because the eye happens to develop in that way we see, or because sex by accident comes to be therefore propagation takes the new direction; but to me it appears more reasonable to conclude that because sight is needed therefore the eye comes into being to prepare the way for sight, and that the distinction of sex came first to provide for a better way by which both animals and plants would advance to speedier heights in ev-

olution through mutations under Mendelian law. Equally it would appear to me that when life began in the water, and fishes, breathing by gills, began to develop into reptiles living on land as well as in water, their possession of rudimentary lungs, which prepared the way for the change, indicated that the change of structure was made for a purpose. Why should a gill-breathing aquatic animal ever begin to get lungs, except because in some future form of life it would need them? Take the mudfish, *Necturus maculosus*, which has gills, lives in the water, but also has rudimentary lungs which it can slightly use. They seem to prepare and provide, in the imperfect lungs which they do not need, for the necessities of their air-breathing descendants. The fish must become a reptile, a land animal, drop its gills and take lungs; or in its individual life the tadpole must become a frog.

Another case of that directive evolution which anticipates in one form of life what will be necessary in a subsequent one appears in the common butterfly. It presents an extraordinary life history. The butterfly lays an egg which hatches into a worm utterly different from the parent. It feeds voraciously, grows rapidly, and then drops its skin, creates a new harder one, and becomes a chrysalis. Now observe the change. All the parts and organs of the old ugly worm dissolve into a homogeneous pulp, which contains no or-

gans whatever. The old nervous and muscular system is all gone. Then there begins to form out of this pulp, as a chicken forms out of an egg, an utterly new creature, a gorgeous butterfly with wings that sucks honey from flowers. Every change was an anticipative one, the chrysalis for the butterfly; the old structure dissolved, not for its own sake, but because it was necessary to destroy the old so that life might begin all over again. This does not look like the work of simple evolution, but of an artist planner.

Parallel cases are numerous in which adaptation appears that could not have been caused by the happy accumulation of accidental variations. Several are mentioned by T. H. Morgan. He cites insects which show curiously close adjustment of the sexes, in which the fittings vary from species to species; the occurrence of offensive odors or poisons; the spines of the hedgehog and sea-urchin and protective colors. Says he:

> These contrivances are not the result of primary or directly causal relations, but are secondary relations, which appear to be removed from the province of physical problems, in the sense that they are supposed *not* to be the result of causal interaction.

There appear to be various indications of somewhat more than mere chance variations in the evolution of man from the lower mammalia. It would seem as if Nature had anticipated man, and

had directed the steps of evolution toward him as the ultimate goal.

Man is better than the brute not because he is stronger or swifter, for he is not—many surpass him—but he has intelligence, and his wit must overcome their muscular advantage. For one thing, he must stand erect, with head above his body, and must walk on two feet. But that is of no advantage till he has human intelligence. Yet the monkeys and the larger apes prepare the way under the usual path of evolutionary progress, as if by a sort of foresight for the anticipated crown of all creation. The anthropoid apes are all arboreal. They climb the trees of the forests, live on nuts, cling to the branches, crawl along them with their four hands, rest there, but they have no visible need of a semiupright stature. They could, for all we can see, do just as well when they walk on the ground, to walk, as some of them do, on their four limbs. But they are semi-erect, not as a dog or a bear may occasionally rise on its hind feet, and not particularly for their own evident advantage, but, for all I can see, in a prophetic way, to lay down the path of evolution for man. That is, evolution has been guided, directed, along a road laid out for it, just as a railway train follows the track laid out for it to reach the city.

Let me take another illustration or two from the human body showing what can easiest be

explained as directive evolution. Most of the mammalia have tails and find them useful; man needs none and has none. Even the monkeys have tails, but as we come to the large anthropoid apes the tails pass away. The mandril has a short tail, the gibbon, chimpanzee, orang-outang, and gorilla have none. And yet they live in trees, and a tail would seem to be as useful for them for protection against falling as for the smaller monkeys. But man is not arboreal, and for him a tail would be an incumbrance. It looks as if the passing away of the tail in the apes nearest to man anticipated and prepared the way for man.

I would take one other change of structure in the latest stages of evolution, which has the appearance of anticipating man's moral nature. The hymen in the human female has no known use or purpose except that of assuring virginity. It is not found in the lower mammalia; but appears in the process of evolution in the anthropoid apes, where it is of no advantage, except as a promise of its sociological value when fully developed in the human being. Professor Schulte, of the College of Physicians and Surgeons, New York, informs me that he has found it fairly developed in the chimpanzee and the orang-outang, although farther from the surface than in the human species. It can scarcely be traced in such of the lower monkeys as the macaque. Its presence is a classical example of the persistence of an organ always

destroyed, showing the non-inheritance of injuries and acquired characters. It has no known physiological value; and its full development and use is found in the human family, while its appearance in these anthropoid apes appears to be anticipative. That is, its appearance is as if it had been intelligently planned for, and not produced in a haphazard, unpremeditated way. Its moral value is dwelt upon in the Mosaic legislation, Deut. 22 : 13–21.

Indeed all life is prophetic, works for an end in the future—so cell joins cell to form a fibril of a muscle. The case of the eye is only an extreme illustration. We call it law, but that simply gives a name to the problem of mystery. The blood in the system is all the same blood chemically, but the force we call life will here choose out of it to repair a muscle, there the skin, there the bone, there to create the eye, and there the special secretions of the body. We may be told that each part attracts what is needed from the blood for its regeneration; of course it does—that is what we see. The germ cell in the ovum will draw other cells to itself selectively, and these again others to themselves, to form all these different parts, bone, muscle, skin; will arrange each in its place, will put head, body, limbs, and organs each in its own order, and create a chicken or a child. In many cases it will repeat this process after the organism, animal, or plant is fully de-

veloped. The worm cut in two will regenerate itself into two complete individual worms. The salamander will grow a new leg or eye if the organ is lost, and will even create it out of a root strange to its inheritance. So we every day see from the wounded trunk or root of a tree new adventitious buds break out where no buds were before, only sap and bark. Life has chosen to produce, where needed, a new creation, for a purpose, with what looks like an act of will. The biologist tries to offer an explanation of this remarkable selective, directive power. He assumes that there has passed into the germ from the parents and grandparents nuclei of all the parts possessed by them, gemmules Darwin called them, while Weissmann gives them other names, determinants, biophors. Possibly such germs there are, although the theory is now much discredited, but nobody has ever seen these conjectural gemmules. They are, if they really exist, beyond the power of the microscope; and they all exist, if at all, in the chromatin of the nucleus of the germ-cell. They may be there, but there is no objective evidence for them. They are the products of the deductive imagination, an imagination quite legitimate, but not confirmed and never confirmable. These brilliant and able biologists have never told us how it happens that these ultramicroscopical germs have ever been drawn to assemble and compact themselves into the chromatin of the

ovum cell, or how they were there grown or created for that purpose and out of the common plasm of the blood. If such gemmules or biophors there be, they are there by the million, but the directive force that generated and gathered them in the germ-cell so that they might be ready to develop in their time and order is not explained. Nor yet is it explained or explicable how or why these gemmules or biophors, each different and now crowded together, move into their own places to develop in the ovum the bird or the man; or, in the case of the butterfly, how they divide into two troops, one troop hastening to form the caterpillar, and the other troop, waiting till the caterpillar has grown big and then disorganized itself, that it may march forth in turn to create the butterfly. All we can say is that in life there is a selective, predictive force that looks like a foreseeing Intelligence. Why not call it God?

CHAPTER X

NATURE'S PREPARATION FOR MAN

IN a previous chapter I have spoken of the qualities of inorganic substances, such as air, water, carbonic acid, etc., which fit them to support the forms of life which were to appear upon the earth. There is much that may be said as to these vegetable and animal forms of life which anticipate, and prepare the way for, the appearance of man, who is the crown of creation, and especially of civilized man, man worth while, man more than a beast.

That there is this adaptation between man and the world of life every moment proves. But we may call this mere good luck, if there be luck, or we may say that the human race has been evolved so as to fit his environment, rather than that an environment has been prepared for him. Beyond question man does adapt himself to his environment, improves wild grains and sows and reaps them with harrows and harvesters. Man is adapted to his world, but it may also be that the world of life has been pre-adapted to his needs. One cannot but ask this question, whether we have evolved to fit the product of natural law in

its necessary evolution, or whether under some sort of guidance Nature has anticipated our needs and made preparation for them. Whether the latter alternative shall seem reasonable will depend mainly on whether the human race appears to be worth the foresight. This is a question of large and momentous import, and the very raising of it may seem both pretentious and absurd. That the earth, so great, so diverse, so multiple in all its grandeur of ocean and continent, with its prolificness of life, animal and vegetable, with the sun and moon that attend and serve and rule it, were so made to serve man, its true ruler, man who is so feeble, who lives so brief a day, who then passes to his dust just as does the gnat that teases him and the tiger that eats him, may seem a monstrous claim.

But think again. Man *is* the very crown of all known visible existence. No physical force in nature is to be compared with man. Bulk does not measure perfection. Life, no matter how low, is superior to any mass of inert matter. The lichen on the cliff is greater than the cliff. And far above the life of the tree, or the life of the highest animal, is man, who is ruler of all, as reason is more than mere vitalism. As Zeus challenged against his supremacy the total power of all the gods whom he could hang from a chain over the parapet of heaven, so, and more than so, for man is of another and superior class, man

matches the genius of his wisdom and might against all hurricanes and billows and thunderbolts, rides the waves, drives the winds, forces the lightning to do his slightest task, the infinite ether to strain with his messages, even enslaves the earth and the mighty sun to till his fields and feed him with corn and wine, rebukes savage nature and supplants its jungles and forests, covering the earth with cities and towns and fields of populous plenty. The earth, all its grass and herbs and trees, all its insects, fishes, birds, and beasts, is ruled by man, submits to his will, and only his; and may it not be that by some higher prevision this was all designed and directed, which not only supplies all his ruder wants, but equally meets all the higher requirements of his advanced civilization? Most certainly so, unless science refuses to consider the hypothesis of God.

No one else has so definitely presented the evidence that the world of life has been prearranged by a higher intelligence for the uses of man as has Alfred Russel Wallace, in his "The World of Life." Have not, he asks, through the whole geologic history, the vegetable growths been preadapted for the coming human and animal life? The bulk of the seed of maize, wheat, rye, barley, and rice is not needed for its own propagation, but is needed for the support of human life particularly, and in a less measure of lower animal life. A multitude of other grasses have small, in-

conspicuous seeds. They can grow just as well without a superabundant supply of starch and gluten. Man needs them, for he can cook his food, which cattle cannot do. Yet the seeds of these cereal grains are so large that they attract animals to eat them, and they would be likely to become extinct but for the fact that man cultivates and develops them. In fact most of them have become extinct, or nearly so, in a wild state. As man depends on them, so they depend on man, as if predestined, foreordained for man. Man could hardly have reached civilization without them. It is true that in cultivation these grains have increased in size, but even in their wild state, like our American wild rice or the wild wheat lately found in Palestine, they attracted human attention for food. A similar phenomenon we observe when we consider other vegetable productions which have become the staple food of man, such as the date, and the cocoanut, the apple, pear, and peach, and a hundred other fruits, melons and roots. They are made to fit higher life. Their delicious sugary pulp or their mass of starchy consistence is of no essential use to these plants and trees themselves, but rather an injury. They are too attractive; they would be likely to perish off the face of the earth, as in the animal world have the dodo and the passenger pigeon, if they were not cultivated and conserved under the conditions of progressive civilization.

There is a species of plant, the *Psoralea esculenta*, growing on dry ridges in the Dakotas, which produces a hard, compact root about the size of a walnut, solid with starch. The Sioux Indians search far abroad for it and tie it in strings for winter food. Of course, the plant takes some advantage of the stored starch for its rapid growth in the spring. But most other plants live and grow equally well in other ways. It is of great advantage to the migrating Indians, but its quality is of injury to it so far as survival goes. It is for man's sake chiefly that it stores food. It seems provided for human use. The same is true of the grape, the huckleberry, the raspberry, the blackberry, the currant, the gooseberry, and other plants that produce delicious fruits whose main purpose is evidently not for themselves. They grow wild, uncultivated. Nature provides these berries for human and animal consumption, while therein assuring their own dispersion. There appears to be in their provision some sort of design which has its end in man.

Yet not for man only. All animal life feeds on vegetable life. The plant, the tree, has not its end in itself, but in that which it feeds. Have you ever watched two or three yellowbirds tearing to pieces the round ball of a dandelion head? You will see that the dandelion lives not for itself alone, but that it may supply the wants of a higher and nobler kind of life. It would seem as if the plant were made in anticipation of the animal

and equally that the animal appeared on the earth when its own time was ripe for it. I do not find it easy to believe that the giraffe, with its elongated neck, was the slow evolution of nature until it could reach the branches of the trees. Some directive force or intelligence seems to have produced it to reach its special food.

In various ways Nature seems to have anticipated man, and, not least, man as civilized, full-orbed, as if Nature were working definitely for a higher end not yet in sight. When man began to feel the need of light in the night-time beyond that of the torch, he found oil in nuts, and animal fats, and soon hunted the northern seas for the blubber of the whale. Then when that source was exhausted, we burned the essence of the sap of the pine till that began to fail with the destruction of the forests. Then the earth opened its supply of oil laid up many thousands of years ago for just this necessity. No doubt Nature in her own processes had laid up this great treasure of mineral oil as a by-product of superabundant vegetable life of a geologic age, just as she had laid up and had previously opened to us her store of coal to fit a stage in our civilization. Yet there appears to be an extraordinary congruousness in the antecedent provision of just what we should need. It looks very much like what we should call a good providence in our behalf. Equally the stored masses of coal in the earth were a requisite for a stage in human civilization. Our cities

could not have been built or our factories run on wood for fuel; the forests could not have sufficed. The carboniferous period was the prophecy of the human industry of modern life, ready to be fulfilled when the time was ripe. There was preadaptation, which was marvellously lucky, if it were not purposive.

The metals generally afford another example. Iron is needed for civilization. Originally it was disseminated in the igneous rocks. When these were broken up then came the red earths, followed by new concentrations from age to age brought about by vegetation; it was not till later periods that the greatest concentration took place. Iron was not needed till man appeared. Much the same is true of gold. The leaner ones were pulverized by natural processes, and then concentrated by gravity in water until the rich placers were formed just before man arrived to need and seek it there.

At a primitive stage, when hardly superior to the higher apes, we can conceive of man as taking for his uses a club from a fallen tree, or a convenient stone. On the famous Phœnician bowl of Præneste such a cave-man is represented with a stone in his hand pursuing a hunter in his chariot. He looks no better than an ape, and Clermont-Ganneau called him an ape. Stones are necessarily abundant, and handy, and here is no evidence of preadaptation of the stone for the uses of man reaching for civilization by means of a

tool. But the next stage is to supply himself with a better weapon, a bow. That requires a peculiar, elastic sort of wood, not like the pine, or cedar, or oak, but an ash or yew, or some other sort of elastic wood. It is ready for him as soon as he wants it. It was not necessary in the order of nature that the special quality of elasticity should be supplied by the ash, but it was necessary for man's upward progress that the ash should antecedently be provided for his use when he should need it. Doctor Wallace adduces this as a preadaptation. I would not definitely assert it, but it is a plausible if not quite palpable conclusion that some directive purpose provided the elastic wood for the primitive bow. To be sure, we may insist that nature, through her superabundant vitality, quite unconsciously reaches out in every direction for every possible quality, and so blindly hits on elasticity in the ash, as it does on pith in the alder or pliability in the osier; and yet the multitude of similar happy adaptations in plant and animal life for the uses of civilization forces us to consider whether some purposive and directive force has not anticipated the human need and provided for it. I do not mean to argue that flint was made just for man's use as a tool, or that the reed was made hollow that man might use it as a blow-gun, for the reed's own need of strength is explanation enough of its evolution. I only instance the case of the ash or yew as illustrating how the preadaptation of a quality not necessary

for the tree was imperative for the use of man in his early stage of progressive culture, as if prearranged for his needs.

Doctor Wallace instances a similar adaptation to man's uses in the matter of navigation, introducing it with this general statement:

> Taking first the innumerable different kinds of wood, whose qualities of strength, lightness, ease of cutting and planing, smoothness of surface, beauty, and durability are so exactly suited to the needs of civilized man that it is almost doubtful if he could have reached civilization without them. The considerable range in their hardness, in their durability when exposed to the action of water or of the soil, in their weight and their elasticity, renders them serviceable to him in a thousand ways which are totally removed from any use made of them by the lower animals.—A. R. Wallace, "The World of Life," p. 350.

Doctor Wallace shows that but for the existence of wood having just the qualities necessary for the building of boats and ships the whole course of history would have been different, and perhaps civilization could not have been developed. The Mediterranean would have been as impassable as the Atlantic, and, later, America could not have been discovered, and Australia and probably South Africa would have been unknown. All this knowledge and civilization depend on certain qualities in vegetable growth not needed by the lower animals, and no more by the trees themselves, which could equally have performed without them all their chemical functions in the absorption of

carbon and the transpiration of oxygen, as they did in the geologic period of the acrogens when the carboniferous measures were laid, and could have satisfied all the needs of the unintelligent animal world. These qualities are useful to man, to man only, and they came into plant history, as it would seem, in anticipation of the time when man should make them useful; acquired late in the process of the ages, just when needed, quite as they would appear if some directive purpose and impulse had prearranged their occurrence.

Again, Wallace calls attention to the countless list of the minor by-products of vegetable life which are of such immense advantage to man in his advance in civilization and comfort, enjoyment, and health. Such are the multitude of drugs and medicines, of which opium and quinine are examples. The milky juice of the poppy may be of use to it in resisting drouth, but why should it also deposit morphine useful only to men? The cinchona bark might be as serviceable to the tree without the quinine in it, but it is needed for man. What is true of these and many other vegetable drugs is true also of thousands of other by-products of vegetable life, balsams, gums, resins, dyes, spices, perfumes, which if in any measure and degree of advantage to the plant, are only subsidiarily so, and not necessary; but which are of great advantage to man, and particularly to civilized man, and will be for a million

years to come. Can we believe that the fragrance of the rose or the violet was essential to the plant itself? Its color was enough to attract insects without its odor which seems added for our delectation. A multitude of plants have for their own advantage developed a thick sap, which is enough for their protection; but a few have added to it something which allows it to harden into the extraordinary qualities of india-rubber, of advantage not to the tree but to man. Without that peculiar combination of qualities man could neither have created the submarine telegraph-cable nor ridden the automobile. He finds the rubber as it were foreordained for his own use rather than for the use of the rubber-tree.

Take as an example the trees and plants that supply us with sugar, a very important element in our comfort. We find it in certain species of maple. Other maples do not have it, do not need it. But it has been of importance to man, as if put there for his advantage. All the more is this true of the sugar-cane and the sugar-beet. Other reeds and other plants of the beet family have a juice that is not sweet. Here is a special provision useful, almost necessary, for man, supplied to him when he comes to need it. Because it is not essential to the plant or tree but is essential to man it appears as if it were the result of some directive evolution in his behalf. I do not say that this evidence is conclusive, but it is of the

same sort and value as much other probable evidence on which we must depend in life.

In the matter of clothing the realms of life seem to have united in anticipating the wants of man as he advances into civilization. The rude man emerging from the brute needed in warm countries no clothing, and in a colder climate was satisfied with the lion's skin of Hercules, or the pelts of his sheep and goats. But growing nicety demanded other garments, and the sheep supplied wool, the bolls of a plant offered the fibres of cotton, and the silkworm spun for man its cocoon. The silkworm might have been protected equally, like other grubs, with a hard case; the seeds of the cotton did not need so soft a bed, for a multitude of congeneric plants are without it; and the sheep might have resisted the cold with such a covering as other animals of its sort find adequate. But these specialties of growth not necessary for them are needed for man; and they are provided as man needs them, not the sheep, the worm, or the plant. Is it too much to see in these and in a multitude of similar cases some directive prevision and plan?

Yet it will easily be replied that Nature is not all our kind mother. The argument can be turned the other way, for Nature produces not only valuable drugs, spices, gums, essences, oils, etc., but also poisons that endanger his life, while a multitude of weeds, innocuous in a state of savagery,

appear to pester his agriculture as he rises in the scale of civilization. This is true, and in its measure it favors the conclusion that Nature works indiscriminately, and in every direction, to produce anything and everything, good or bad that may arise; but they are comparatively few, and have their protective uses as do spines and thorns; and if beasts that graze are able to discover and avoid them, the same is true of intelligent man, not to speak of their value as drugs. Equally it is not the careful farmer that allows himself to be much troubled by weeds.

Yet Doctor Wallace's argument, it appears to me, must not be pressed too far. The starch of the potato is valuable for man, but the deadly nightshade belongs to the same family, and is so specialized as to be dangerous to man. In the same family and the same field we find foods and poisons, fragrances and stenches, the flower and the thorn. If we can, as Doctor Wallace has done, gather the delights of sight, taste, and smell found in the vegetable world into one "bundle of myrrh," to strengthen our faith in the Creator who foresaw the needs of his creature man, it would also be easy to gather under the shadow of the upas-tree the disagreeable, the pernicious, and the fatal. The spicy and the sweet are matched in some measure with the acrid and the fetid.

This is all true. Nature does not coddle us with a satiety of sweets. The rose is beset with

thorns. We would not have it otherwise. Yet common experience testifies that the useful vastly outweighs and outnumbers the harmful. Every green field and every wooded hill testifies to this. The immense preponderance of good does not seem quite fortuitous. If such preponderance there is, may we not presume that there was purpose in it? If man is the very crown of all Nature's aspirations, and if provision was made for him in physical nature, in the composition of the oceans, of sea, and sky, may we not also presume that the abundant supply of the organic products of Nature, and their qualities absolutely essential for man's life and progress, give a presumption that they too anticipated man? The bulk of them and the nicety of their adaptations support such a view. They fit into our wants with the exactitude of the junctions of a dissected map. While there is no question of the miscellaneousness of the productions of nature, yet they are not indiscriminate. The useful animals and plants that come into existence with man vastly exceed those that are pernicious; there is a place in the scheme of things for the tiger's tooth and the spines of the cactus. While too much must not be made of Doctor Wallace's argument in "The World of Life," yet its cumulative bearing appears to me to have weight as indicating that there was a control in nature which guided the operation of its laws for the benefit of man.

CHAPTER XI

REASON AND SOUL

WE know the world of existences and forces under three forms, that of matter, that of life, and that of thought. In preceding chapters I have indicated how the world of matter and the world of life appear to me to bear witness to a superior Intelligence which has created or guided them. I now come to consider whether the world of thought has a similar origin, or has merely grown, in an evolutionary way, out of the worlds of matter and life.

The forces of matter, life, and thought are totally diverse from each other. Life is a phenomenon of tremendous significance. It marks an absolutely different stage in the operation of nature. Physical forces can give us rocks, mountains, continents, rivers, oceans, winds, lightning, and rain, and their continued operation would reduce the earth to a degradation of morass and sea. But life brings a new force which fights physical forces, produces forms, vegetable and animal, which operate and direct to their own ends all physical forces, and exercise a dominance over them. But there is a third stage in the opera-

tions of nature. As organic life is of a different order from inert matter, so mind is of yet another order from either, and vastly higher than they. With the animal kingdom there came in mind, not possessed by the physical elements, and no more by the vegetable kingdom. It is, in some degree, a characteristic of all animal life. The lowest forms have intelligence enough to feel for their food. As higher forms appear they learn to avoid danger, to search abroad for their sustenance, to swim, to fly, to run, till conscious reason appears in man and is supreme over the course of nature.

As I have found it hard to believe that the activities of life can be fully explained by the laws of physics, although life constantly uses the laws of physics, so I am not easily persuaded that mentality, with its crowning power of will, is explained under the laws of life. Such is the teaching of those who hold that thinking is nothing more than brain action. Beyond all question the brain is active in all mental processes; and one can make the hypothesis that the brain is all there is to it, that its province is to produce, secrete thought, feeling, will, consciousness, just as the liver secretes bile; or one can take the other hypothesis that the brain is an instrument which is used in the production of mental activities by some separate, outside, immaterial power somewhat as a harp, inactive and silent itself, is the instrument of music, responsive to the fingering of the musi-

cian. In the latter view one could think of the brain either as responsive to the influence of some universal force, as the wind plays on an æolian harp, or as affected by the action of an individual mind attached to itself alone. That would be the man's soul, and this view has held the field the world over, and in all ages. This is mainly because the phenomenon of will is evidently the action of individual and not general consciousness. We know, if we know anything, that we feel, we think, and we will, each for himself. We may, then, dismiss the supposition of some universal force blowing upon the brain or, to use the figure of the ocean, bubbling up into it as producing all its activities, whether we call that force God or anything else. Under the hypothesis of some external power using the brain as instrument our consciousness puts it under the control of each individual's own mind, but may leave the question open whether other minds can also use it. We have then two alternatives left to consider: one that thought is entirely a function of the brain; the other that each brain has its own ruling mind, separate from matter, which uses the brain as its implement.

The physiologist cannot decide which of these two hypotheses is true. His business is to study the activities of the brain, and he may see nothing but the brain acting, while the psychologist may see something else.

The knife and the microscope can investigate only the material brain and discern how it works. If there is mind, it is as invisible as the wind which we know blows on a harp. It might seem a hopeful method of further research to inquire whether the law of conservation of energy applies to mental action. Here we find that every thought or feeling or volition is accompanied by a certain action of the brain cells, and flow of blood, so that the brain is affected by every mental activity. Yet this is not conclusive; there may be something else. Even so the harp is affected in the movement of its strings and the vibration of its frame by the finger of the player, so that the amount of force in the finger is exactly matched by the energy of these vibrations. But it is the player that plays the tune, not the harp. In the case of the brain, however, it is impossible to prove that any Joule's law is applicable to the transformation of brain matter or brain force into an equivalent amount of thought force. In his Presidential Address before the British Association in its physiology section, 1911, Professor J. S. Macdonald says:

> There is no one at the present time who is in a position to discuss the energy transformation of the central nervous system. Further, there is certainly no one capable of dealing with such peculiarities as might arise in the energy transformation of that part of the brain which is associated with the mind.

He further says:

There is no scientific evidence to support or to rebut the statement that the brain is possibly affected by influences other than those that reach it by the definite paths proceeding from the sense-organs and from the different receptive surfaces of the body. It is still possible that the brain is an instrument traversed freely, as the ear by sound, by an unknown influence which finds resonance within it. Possibly, indeed, that the mind is a complex of such resonances, music for which the brain is no more than the instrument, individual because the music of a single harp, rational because of the orderly structure of the harp. Consider such a possibility . . . inasmuch as an instrument shaped in the embryo of a certain set of conditions may in due course of time become the play of some new influence which has taken no immediate part in fashioning it. I will not dwell upon the point beyond this statement that I find it difficult to refrain from using the word *soul.*

Professor Macdonald's illustration appears to me to have argument in it. The ear is a delicate organ, inactive and useless until mysteriously excited by a vibration from without. Just so the eye more delicately constructed must wait for the access of light before it can see; and even so it may be that the yet more delicate organism of the brain, which is torpid in sleep or under anæsthesia, is an instrument which is traversed as freely as is the ear or the eye, by an exterior influence which finds resonance within it. That influence would be the soul.

We see; but we do not see what it is that makes us see. We have sight and the organ of sight; but because we cannot see the cause of sight which affects the eye we assume and believe in an invisible ether and its invisible waves. We cannot see the cause which affects the brain and gives us thought, but we are quite within our rights when we assume that something works on and through the brain, and we call it, invisible as it is, mind or soul. We have the right to believe that it is something more and other than brain, because the brain is purely material, matter that has life in it, and its products must be material, as all products of living matter are—seeds, fruits, muscles, organs. Thinking is not material. It is very hard to conceive of thought as a function of matter, even of the brain, for we see in it nothing akin to material forces. Thought belongs to a different plane. It is immaterial, spiritual, not physical. What is a thought? Can you put it in balances and weigh it? Can you measure its bulk? Has it dimensions? By what yardstick can we measure love and hate? By what micrometer can we compare the relative values of ideas? Conscience has no relation to weight or bulk. No physiologist can tell us that Shakespeare exhausted more brain tissue in writing "The Tempest" than Walt Whitman in composing "Leaves of Grass," or that Virgil's brain was more worn away than that of Mævius.

Yet it is for another reason chiefly that the boor or the philosopher believes he has a soul, a proof that depends on consciousness. He feels that there is something in him that is lord of his body. He originates purpose, will, and his body serves and obeys him. He cannot think of the body as himself. He is its master; it is his slave. The master must be something other than the slave. He does not see it, and he thinks of it as something spiritual. It is then easy for the savage to imagine that in dreams his soul leaves the body and wanders off to visit other souls. The philosopher regards the dreams as mere fancies of imagination, but he knows that something in him, or, rather, the real self has initiative, originates thought, exercises will, and using the reservoir of the brain sends messages by way of the nerves, which are but the extensions of the brain to all the body. To him the whole nervous system, brain as well as the spinal cord and the nerves, seems all to be but his instruments, the brain like the boiler of a locomotive from which power goes through steam-pipes and cylinders to move the pistons and wheels, while the engineer's will controls it. So I look at the operation of the mind and the body. The brain is the steam-chest, the blood is the furnace which supplies its force, the steam-pipes are the nerves which carry the force where needed, and the remaining machinery corresponds to the parts of the body which obey the

message of the nerves. But back of all is that which gives orders, which we call the soul, the engineer of the great human machine, which knows, thinks, wills, while brain and cord and nerves are its obedient servants. Man wills; he cannot think that matter wills. There is something of the same intangible order as is the will itself that he feels is ruler, originator, initiator, something more than the material body. If there is nothing beyond the working of the cerebro-spinal nervous system, then, as it appears to me, there can be no free-will; all must go on mechanistically. But it does not go on mechanistically. "No physics, no mathematics," says Sir Oliver Lodge, "can calculate the orbit of a house-fly."

Such seems to me to be the reason why all except some philosophers have come to believe in the existence of a soul within, or related to, the body. It carries conviction to my mind, and I do not think it is because I and all other people wish to believe.

What relation does belief in the immateriality of the human soul have with belief in God? Just this, that the existence of many millions of human souls, all immaterial, all invisible, does away with any presumption against the existence of a superior, or supreme, immaterial, invisible being related to the universe which he may control, even as the human soul controls its body. The argument is not absolute and final; one can yet disbelieve.

The step is easy, however, from the human soul to the existence of a soul of the universe, which yet is not the universe, but which rules over it as the human soul rules the body.

CHAPTER XII

THE PROBLEM OF INSTINCT

THE reason of man, and to a less degree that of animals, is something to wonder at and admire; but the instinct of animals, and particularly of insects, is even stranger, more mysterious. Reason accomplishes ends and knows why it uses the means; instinct does as much but does not understand why it does them. Reason rises so high in the realm of freedom that instinct is not needed; for it makes its own rules, finds new ways to meet every new condition, uses tools instead of feet and horns, thinks, plans, contrives, combines, controls the forces of nature, and creates civilization. In this highest realm of nature we seem to see God walking in the garden, but may we not see him quite as really in instinct?

Instinct does the works of reason without its reasons, without knowing why, without being taught. The worker bee just hatched from the pupa state flies unaccompanied to a distant flower, gathers its honey, returns to the hive, and deposits it in a cell, and all without knowing that the honey placed there is to be food for the next generation. We know why we store our provisions; the bee knows nothing, simply does it.

Both instinct and reason are found in man, but instinct is soon nearly suppressed, while in the lower animals, and particularly in insects, it is reason that is little developed and instinct controls. The new-born child takes the mother's breast by instinct, and for a period all, or nearly all, its activities, seem to be instinctive; but in a few days it moves its eyes for a dim purpose, and in a few months walks about, a creature of reason and will. A grown man is conscious of scarce any act that is instinctive. But the action of the bee as it builds its honeycomb, or of the solitary wasp when it provides for its young, may be regarded as wholly controlled by instinct. It is to be considered whether these actions of instinct can be regarded as purely the product of unconscious evolution, or whether they have been guided by a foreseeing, superintending intelligence.

In the higher vertebrates it would seem as if some forms of instinct could have been the product of normal evolution. The instinct which sends wild geese from their nesting summer home to escape in more southern lands a hungry winter may seem to have its origin in some more indefinite and gradual pushing toward more abundant food as the northern supply was exhausted with the freezing of the waters. Those which happened to do this once may have followed the sun back in the next spring, although we do not see exactly why, and their young may have inherited, so it

is said, although such power of inheritance is not evident, the memory of the spring and autumn journey. It is not clear that such northern nesting birds could have survived the winters, small insect-eating birds, before they learned to start, while food was yet sufficient, for their journey of thousands of miles forth and back every year; but perhaps geology may help us. The changes may not have been so extreme then between summer and winter, and the annual trip may not have been so long. Let it be allowed that the instinct of birds of passage may have developed out of the slow accidents of undesigned advantage, remembered and repeated and then transmitted to posterity; yet such migration hardly touches the fringe of the problem of instinct. It has to do with a class of animal life that possesses the mask of reason.

But take another case, instanced by Professor J. A. Thompson, that of the eel, which has a brain of a very low order. Those of northern Europe probably begin their life on the verge of the deep sea west of Ireland and southward toward the Canaries. The eel rises to the surface, for months a small transparent larva. After a year it is one of a million "elvers" passing up a river. Some have travelled three thousand miles. Here they grow, but do not breed. They return to the deep sea to breed. Can this be explained on the machine theory of life? Can it be explained by any

happy accident of environment and evolution? The movements seem too immense and complex to be thus accounted for, without some intelligent guidance in the process of evolution. When I consider this case, which can be matched with the migrations of salmon and many other fishes, I begin to feel more doubt whether evolution will explain the migrations of birds.

Let us return to the case of that honey-bee whose first flight has led it safely to a difficult flower. Capture it now, and carry it about, and when let fall it turns around and flies to its hive. It knows where it belongs; it has a strange sense of direction beyond reason. That is the way bee-hunters find the hole into which bees enter in a hollow tree in the forest. I cannot see how that sense of direction could have come by evolution, seeing that each colony has a new hive or hollow tree, and has to be born with a separate sense of direction. You can't explain the flight back as you can the return flight of a boomerang.

Is it easy to conceive how among bees the marvellous development of instinct should appear in neither the male nor the female, the drones and the queen bee, neither of which do any work, nor inherit any skill; while the workers, who show such marvellous instinct in finding the flower and expressing its sweet and finding their way back to the hive, and then building the waxen cells and filling them with honey, and then killing the use-

less drones, are neuters, sexless, and have inherited none of their skill? Can all this have come by the slow process of inheritance, where there is no sexual inheritance? Not a worker will transmit its skill to its progeny, for it has no progeny, and its parentage had no such skill to transmit. One cannot help thinking that this purposive, but not inherited, power has been imposed upon the bee from some outside intelligence, which has even taught it how to select a grub in one of the cells and nourish it to be the future queen. And what has been said of bees can be said of ants, whose colonies are divided into masters and slaves. Is it any wonder that Virgil says in the fourth of his Georgics that bees "have received a share of the divine intelligence and drafts from the heavens; for God pervades all, earth and the expanse of air, and the deep vault of heaven"?

Of the various phases of instinct the parental instinct is one of the most necessary, essential to the continuance of the species, yet apparently inexplicable on the theory of evolution, for it provides for the future of the young of which only mammalia and birds can have any knowledge. And in the case of birds we cannot suppose that they have any knowledge why they sit for weeks most uncomfortably on their eggs. They do not know that young birds are to be hatched from the eggs, nor do they know the eggs must be kept warm. They simply do it from instinct. It is

the law and they must. But we can see no way that instinct of law can have been acquired under the mere provisions of nature through development. The human race has this parental, or at least maternal, instinct, and adds to it reason. The mammalia have it, and will fight for their young, at least till they are weaned. But it is among the insects, which know nothing of their young, that the most remarkable illustrations occur of the parental instinct.

This parental instinct, often so wonderfully developed, is not easily explained by evolution. In the case of man, who has reason, a plausible explanation can be conceived. The mother consciously carries the child in her body, anticipates its birth, thinks much about it, suffers for it the pains of childbirth, and feels the necessity of suckling it. Both she and the father know the value of the child as he grows to be the defender and the provider of the home and the tribe. Mother-love and father-love are by no means all instinct. But it is not so with the lower animals. They do not feel the eggs or the young growing in the maternal body. They have no sense of prospective value of the young when they shall become adult. What is done for the young is a burden to the parent. The selfish instinct would lead the mother to desert her offspring, as the ostrich is said to leave its eggs to hatch in the warm sand. But parental instincts overcome the interest of the

parent. This appears not only in the higher mammalia and birds, but also in fishes and insects which will never have any knowledge of their young.

Consider the case of the cabbage-butterfly, as one of many. It takes pains to lay its eggs on the cabbage on which its young must feed, but on which it does not itself feed. We call this instinct, but by what power or what evolution does it come to select for the nidus of its egg the one plant on which its young must feed? It is difficult to refer this instinct to the slow process of eliminating in generation after generation for many tens of thousands of years all the butterflies whose grubs did not happen to find a suitable food in the cabbage. But even so, how came the butterfly to choose the cabbage to lay its eggs on, particularly when it never has seen and never will see its progeny, and does not itself feed on the cabbage? To be sure, as a caterpillar it fed on the cabbage, and it might be said that somehow as a butterfly it remembered its previous incarnation and returned to its first love, but it is not easy to conceive that it had any physical basis for such memory, when we consider that when it passed from the pupa into the chrysalis state all its interior parts were disorganized and reduced to pulp, nervous system as well as digestive, and only the germinal disks left which were to reorganize the butterfly out of the worm.

Consider the parental instinct of the solitary wasps in providing for their young, of which they will know nothing. With the egg they put a caterpillar of some sort which will be food for the worm when hatched from the egg. They choose different victims, of which one has a single nervous ganglion, another three or even more. They sting it in one or three or more places, just where the ganglia are, as if with as much knowledge as a surgeon, so as to paralyze and not kill; and they even crush, when necessary, the head of the victim so that it can live inactive until the wasp's eggs can hatch and it can supply food for the grub. Here is parental instinct, and much more, too. We have an extraordinary surgical skill which Bergson tries to explain as "a sympathy" (in the etymological sense) between the wasp and its victim which teaches it from within, so to say, concerning the vulnerability of the caterpillar. This feeling of vulnerability, he says, "might owe nothing to outward perception, but result from the mere presence together of the wasp and the caterpillar, considered no longer as two organisms, but as two activities." To my mind this is a meaningless explanation. It explains nothing. They are two organisms, and must be so considered and they are two activities. It is a mad attempt by a mist of words to escape from the easier explanation of a superior intelligence which has taught instinct what to do. I do not know why

teleology may not be as legitimate as any other device of philosophy. But I agree with Bergson that this parental instinct and this clairvoyance are not to be explained by evolution.

It would seem impossible to explain how the parental instinct, and particularly the paternal, could have come by any sort of evolution in the case of certain of the lowest vertebrata, toads and fishes. Says the German naturalist, Doctor William Berndt:

> Among the toads there are fathers which apparently swallow their young, that is, the spawn; but the paternal gullet is the babies' cradle in which they merrily develop (*Rhinoderma darwini*); in the case of others (*Pipa americana*) the young pass their tenderest youth in honeycomblike cavities on the mother's back, in which the spawn is supposed to be placed by the father. In others still (*Alytes obstetricans*, the well-known obstetrical toad or nurse-frog), the father acts as midwife. He twines the chain of eggs about his hind legs and buries himself alive for nearly two weeks, until they are ready to hatch.

Another one of many remarkable cases of paternal care is that of the Siamese "fighting-fish." They build for the eggs a nest of foam bubbles, and the eggs are deposited in it to hatch. When the young fry appear it is the father first that devotes himself to their protection against even the mother, and attacks with fury any intruder. All this is what we call instinct, far above reason, a sacrifice and care which no science can explain.

If it is "creative evolution" it has needed intelligence to guide the evolution.

Passing now from the parental instinct to that intuitional clairvoyance which has been noted in the case of the solitary wasps, we may take the case of the *Philanthus apivorus*, which has the same power. It feeds on bees and its story is told by Fabre. It meets the unsuspecting bee, perhaps on a flower. With its weapon it stabs the bee, not anywhere it may happen, but at one spot, just under what may be called the chin, just where the head ganglia are, and the blow instantly paralyzes the bee, so that it can make no resistance with its more powerful sting. Then the brigand holds the bee for a minute or two, as if to make sure that the blow was effective, and then crushes the bee and forces out of it the honey it had swallowed, and makes its meal from it. This is not reason, it is instinct; but could that instinct have been reached by a slow process of reason and experience, after millions of trials by millions of bee-hunters which had struck their victims wherever it might happen, and had finally learned to choose the right spot for the deadly blow? It does not seem reasonable. That knowledge goes beyond the directive agency of chance.

One or two further illustrations of almost incredible instinct I take from Professor J. Arthur Thompson. The liver-fluke consists of only a few cells altogether. It has no nervous system.

"It is covered with cilia, and has energy enough to swim about for a day or two in the water pools of the pasturage. It comes in contact with many things, but it responds to none until haply it touches the little fresh-water snail, the only contact that will enable it to continue its life." Here it enters the breathing aperture and goes through various modifications and multiplications until it is taken up by a sheep and completes its metamorphoses. The response to the one stimulus of this very simple organism cannot be explained mechanically nor easily by evolution. It appears to have been bestowed on the liver-fluke.

Another case is that of the fresh-water mussel. She carries her young in her outer gill plate, and does not set them free unless there is a stickleback or the like in the immediate vicinity. "Then she liberates a crowd of pinhead-like larval mussels who rush out into the water like boys from the open school door." "They are aware of the stickleback; they fasten on it to begin another chapter of their life." This is instinct somehow imposed on the mother mussel and her infant brood. How came they to possess it? The best explanation I can find is that a supreme intelligence gave this instinct where reason could find no place to abide.

Yet one final illustration must be added, which I take from Bergson, following Fabre. There is a little beetle called the Sitaris. It chooses to lay

its eggs on the underground passages of a certain sort of bee. But why does it seek that of all places? It is a long and intricate story, far beyond the powers of the accidental strivings of evolution. The young larva hatched from the beetle's egg springs upon the male bee as it emerges from the passage, clings to him, is carried on his nuptial flight, when it passes to the female bee, and remains attached to her until she lays her eggs in the honey. It then leaps on an egg floating on the honey, devours it and develops, rests on the shell, and undergoes its first metamorphosis. Now it eats the honey which had been prepared for the grub of the bee, and develops into the perfect beetle. I fail to make it seem possible that such a complex of apparent purpose, which seems to surpass reason, which amazes the biologist, could have come to be because one Sitaris out of a million happened in an accident of nature to have laid its egg in the tunnel of a certain bee, and the worm when hatched happened to jump on the male bee as it came out, and then happened to jump on the female bee, and then happened to light on the bee's egg floating on the honey, and that this happened often enough in its posterity until a sort of memory of this success was inherited in all the worms of the species. Am I told that this was not all achieved in one generation, or all at once? Then I ask, What was the use of inherit-

ing any of it until the whole was combined in one achievement; and what likelihood that the second generation would inherit any of it? Here is a purpose which to my mind is more easily explained theistically. Bergson refuses to explain it on Darwinian principles, and is driven to the extraordinary assumption that in a sort of mysticism the invading insect has a sympathetic understanding of the insect it has invaded. That means that one insect has an intuition of the habits and intentions of another species; that an insect which has but a feeble consciousness of itself has an astounding consciousness of the mental workings and, as we see in the case of the wasps, even of the finest anatomy of other sorts of insects. The explanation is more amazing than the facts observed. To me it is more difficult to refer such mysterious intelligence to the insects than to God.

I do not in this discussion deny evolution, for to my mind it is proved beyond question. But in evolution I see what biologists can see, and all they can see, the orderly progress of higher and higher forms of life, and of new accessions of instinct and reason. But when it comes to the explanation of the causes of such progression we must consult philosophy, and the philosophy which thinks it discovers intelligent guidance of evolution cannot be peremptorily excluded. Darwin's philosophy rested on "gemmules," though without denying guidance, and others have put "bio-

phors" and determinants, as many as may be needed, in the compass of the blastomere of the ovum and sperm. But this does not make it clear how ancestral knowledge, memory, instinct are transmitted to the successive generations of birds and fishes and insects. It is one thing, and a comparatively easy thing, difficult though it is, to conceive of the physical elements of a bird's or animal's body concentrated as gemmules in the spermatic or ovarian cell to develop into the body, for they are physical. But the memory, the pregenital habit, the parental foresight, the wasp's surgical skill, the neuter bee's architecture —can we suppose that these can be broken up and transmitted by "determinants" and "biophors?" Or is it conceivable that Darwinian "gemmules" in the chromatin of the egg can carry a habit, an ancestral memory, which has been conceived of not as inhering in and dependent on cells, but as immaterial activities? To me it appears quite legitimate and very reasonable to seek outside of the aimless and casual movements of physical and vital forces for the intelligent guidance of some superior power. When we consider the realm of mentality, of instinct, and reason, we may recur to the untaught wisdom of the Man of Uz and say with him.

> "Ask now the beasts and they shall teach thee;
> And the fowls of the air and they shall tell thee;
> Or speak to the earth, and it shall teach thee;

And the fishes of the sea shall declare unto thee:
Who knoweth not in all these
That the hand of the Lord hath wrought this?
In whose hand is the soul of every living thing,
And the breath of all mankind."

CHAPTER XIII

THE DIRECT VISION OF GOD

THE evidences for God drawn from nature, from matter, life, and mind, the things visible to us and experienced by us, are those that appealed to the author of the biblical poem which summoned all the forces of nature, the lightning and the cloud, Orion and the Pleiades, the horse that snuffeth the battle afar off, Behemoth and Leviathan, to testify of God, and who asked: "Who knoweth not in all these that the hand of the Lord has wrought this?" It was to this argument that Paul looked when he said: "The invisible things of him since the creation of the world are clearly seen, being perceived through the things that are made, even his everlasting power and divinity." These are the arguments which have convinced the world, and on which I would chiefly depend. They are based on the presumption that if, as has usually been believed, God made the universe, marks of his handiwork will be visible. They do not command utter conviction as does a mathematical demonstration nor as would a direct vision of God, such as we are told was granted to Moses. But there have

been, and still are, not a few who do not need and may properly disdain arguments and proofs for the existence of God because they have, they believe, seen him in their souls as truly as Moses saw him on the mount.

But does it follow because one does not possess the power to recognize the consciousness of God, that he cannot have any comfort in prayer, nor any assurance that God is present with him to hear and answer? Certainly he can. Faith is not sight, but it is the assurance of things hoped for, the proving of things not seen. One can believe in an invisible God, in his presence, in the influence of his Spirit, in guidance and inspiration. That is the lesson of the whole eleventh chapter of Hebrews. Such faith can give peace and even joy in him "whom not having seen we love; in whom, though now we see him not, yet believing we rejoice greatly with joy unspeakable and full of glory: receiving the end of our faith, even the salvation of our souls."

If direct vision were generally given, no other evidence would be needed. But it is given to comparatively few of us. I have never had it, and in my younger days I used to seek and pray for it. It did not come, and I gave up the effort, believing that if God wanted me to have it he was good enough to give it without my straining further in prayer for it. But others say they have it, and if their testimony is to be accepted

that ends the matter. But that needs consideration, for there are chances of error. Meanwhile we hear the common petition in the pulpit and prayer-meeting that we may be conscious of the presence of God in our hearts. I never make that prayer.

What is it to be conscious of the presence of God? It is not to have faith in God, to believe he is present with us by his Spirit in our souls helping our infirmities and answering our prayers. Faith is not sight. But consciousness of God is to feel in the soul such a touch of his action on the soul that one will know that it is not the working of his own imagination, but an external appulse, as surely external as when we know that a friend is seen or heard. It is something more and other than feeling happy or exalted. It is the soul hearing the voice which we know is not our voice but God's voice.

I do not think this is a very common experience, not nearly so common as is a peaceful reliance, trust, in the goodness of God. When it is found it is evidential; but is it really found?

The seeking and finding of such spiritual experiences is what is called mysticism, and theology has made much of them of late. In past times it has taken the form, very much, of the effort to identify oneself with, to sink oneself in, the infinity of God. This is not an active but a passive form of religion, and has had its widest

vogue in the Hindu *Yoga*, in which absorption in God induces indifference to the world and asceticism. The more usual form of mysticism is that which is less tending to Pantheism, and seeks to know God as one knows his neighbor, by recognizing God in his assured presence in the soul.

While such a consciousness of God is evidence enough of God to him who believes he has it, it can be no evidence to one who does not feel it, and who thinks the subject of it is mistaken and has simply imagined that a response had come from God to his desires. In dreams and in insanity alike one imagines what is not true, and there is with many an imaginative soul a stage midway between the two. We have had multitudes of cases in revivals of those who, after much excitement, have sought and found, they believed, the positive, recognized voice of God forgiving their sins, and they have fallen to the ground in an ecstasy of joy. Just as much the American Indian goes into the forest and fasts for days and nights till he has his response from the Great Spirit. Indeed, such experiences are most frequent with those, whether ignorant or cultivated, who have less of the rationalizing nature and more of the imaginative temperament. I am very suspicious of such supposed experiences. I am myself a complete rationalist in my religious faith, and desire to believe nothing that I do not understand and find a good reason for. One of my

valued friends was a clergyman who in his old age developed the power of recognizing the response from God, and equally from his deceased wife, with whom he talked freely at night and whom he consulted on various personal matters. He had no doubt of her presence. I doubted; and equally I doubt in the cases of those who have this easily responsive, mystical nature. I do not envy their facile assurance; I would rather trust cold, suspicious reason.

I suppose religious mysticism is closely allied to a philosophical idealism which reduces even reality to thought. The world is God's thought; he thought it into existence. All we know is our thinking. We can think ourselves apart from anything material and into God. So in a new sense the world passes away and the fashion thereof. Hence the so-called New Thought, the Christian Science, Hindu swamis, and any religious philosophy which can think suffering and sickness out of reality, and God in us and us in God.

The assurance of the existence of God which comes out of first assuming God, and then by vigorous willing convincing oneself that one has a conscious experience of God, appears to me an abuse of reason and a fallacy, and may be dangerous. By its claim to an immediacy of vision, its union of the soul with the Source of all being, it creates a superior class, a religious aristocracy,

above the rest of us who can reach no higher than loving submission and obedience to the heavenly Father, and with it have often come strange delusions to believe a lie.

Closely allied to this mysticism, if not identical with it under a different name, is the teaching of the immanence of God, with its certain assurance, direct and unmistakable, of the existence of God. Yet under the teaching of immanence God is assumed as the substratum of all that is, the supporter and active agent in all nature, and particularly in the soul of man, so that in him we live and move and have our being in a very literal sense. I have heard intelligent people use its language and defend it when all they really meant by immanence was the old doctrine of the divine omnipresence and providence. Yet one can persuade himself in using its language to believe that he has reached a real personal touch of his spirit with God. To me all this has no evidential value, and it is mainly, if I am not mistaken, an assumption rather than an experience.

I can see that the assumption of the immanence of God in oneself and in nature may give comfort to certain souls who are ready to believe that they are a fragment of God, like a little island peak rising out of a vast, invisible, submarine mountain range. In such presumed immanence, or idealistic monism, or whatever it may be called, there may such a relation with

God be assumed or imagined that the individual may seem to recognize somehow that larger something of which he is a part. It is beautiful thus to discover oneself to be a little uprush or outburst of God. But what of the criminal man? It seems profane—it is nothing less than profane to think of a criminal as a small disfigurement appearing on the visage of God. But what else is he?

There are many who would say that consciousness of God is the strongest proof of God. Then the great multitude who have no such consciousness can have no such proof. Consciousness would be for the individual the final, conclusive proof. I never could cheat myself into feeling it. We must remember what such consciousness is. It is the recognition that you apprehend, feel, grasp God as something which you are sure is not yourself, which touches you from the outside; just as when a person touches you you recognize his touch as something exterior to yourself, or when you hear your friend's voice you instantly recognize its otherness; you did not make that sound, it came to you from the outside. Now I have never felt clear that I could recognize an exterior stroke impinging on my mind which I instantly perceived was not of my own mind's origination. That is what I mean by saying that I have never been conscious of God, and the great multitude of common people have never had this

proof of God, and are as incapable of having it as I am. It is the supposed possession of those only who either blunder in terms, or who simply repeat a formula of words without knowing their meaning, or who identify their own mental processes with the voice of God, or who are a genuine sort of mystics that have a mentality and a reach into the infinite above and about them which is special to them and beyond the reach of the common mortal of this generation of objective reality and rational common sense. Theirs is instinct rather than reason.

So I have no interest in the argument of consciousness, consciousness of a perception, which is itself the direct apprehension, grasping, laying hold of God, and which needs no other argument. That the world begs for argument of God is evidence that the world has no consciousness of God. I would not say it is impossible that any one should have immediate and real consciousness of God. There may be rare souls which have transcendental and transcendent power. Yet I doubt if they really have a gift not given to others. I know that imagination plays strange tricks. In some perfectly sane children imagination is next to reality. And there are imaginative people who see visions and have experiences which are purely subjective, but which to them seem objective. I shrink from much of the stock phrases in religious conferences and prayer-meet-

ings about our communion with God, practising the God-habit, the consciousness of the divine presence, which would be dangerous and fanatical, if it were not to be reduced, and practically is reduced, to its lowest terms of simple faith and love.

Closely related to these doctrines of mysticism, though not itself mystical in spiritual experience, is the teaching of some that the idea of God is one of the fundamental principles of thought. They simply assume God as something bound up in the mind itself, so that whenever one thinks, he thinks with God in the background. If so, we need nothing further, but so far as I know it is not so with me, and the testimony of others will, I think, agree with mine. Nor do I see that the mind is so constituted that men must necessarily think on the basis of God, as they think on the basis of the axioms of geometry. Indeed, some people do not believe in God.

Nor will I burden myself with trying to understand what is meant by absolute being, and asserting the necessity of absolute being, and declaring that absolute being is God. If absolute being means nothing more than being which exists of its own necessity of being, the term is a needless mystification of thought. That there is being that exists by its own necessity of being I believe; but I believe it because I know of finite, dependent, contingent existences, and there must

be back of all something which is not dependent, on which they depend. But this has been considered in previous chapters.

Another form of this argument is the claim that the mind possesses an inherent sense of truth, goodness, and beauty, and that there must be a perfect objective standard of truth, goodness, and beauty by which they are measured, as length is measured by a yardstick. These ideas certainly are inherent in the soul, but why that should involve the objective existence of a Being who is the standard of perfection in these attributes I fail to see. I imagine a perfect or an imperfect being, but one fancy no more than the other assures its existence in reality. The argument is too much like those for the Platonic ideas that exist realized in heaven, the substantive generic patterns of the things on the earth, or such as the Lord showed to Moses on the mount, copying which he was to build the Tabernacle.

Neither am I convinced by the moral argument, which asserts that there must be a great Being who in another world will correct all the inequalities and injustices of this present life; that the righteous man who has been buffeted all his life here will find, must find, that a great and infinite Ruler and Judge will by and by straighten all this out, that only thus can final justice be reached. So I believe and hope; but I fail to see why, in the nature of things, final equal jus-

tice must be victor. Of course, after we have reached the conclusion that there is a God we will then say that he will righten there the wrongs here; but before we have found a God to exist I do not see why it is necessary to assume that the present sufferings and defeats of the righteous, these miserable, often horrible inequalities and injustices here, must find a future Vindicator; any more than I can see why the inferior man, given the handicap of a low mentality, unable to be a Bacon, a Newton or a Shakespeare, should and must perforce in another world be given in justice an intellectual equality with the favored geniuses of this life.

The arguments for theism considered in this chapter appear to me to rest mainly on the wish to believe. But the fact that we wish to believe in God, or immortality, or anything else, is no weighty evidence or none at all, in favor of such belief. It is of that fallacious pragmatic sort which holds that a belief is proved true by proving that it would be a good thing to have it proved true. Science ever "refuses to regard our own desires, tastes, or interests as key to the understanding of the world."

I have no hesitation in writing this chapter caused by any fear of disturbing the faith of those who have been pleased to repeat the arguments which to me seem of little or no validity. They already believe, and nothing can disturb their

faith. They ask no reasons; their power to need or ask questions was long ago aborted. They rejoice in their inability to question. They are glad hearts without reserve or doubt, who, to change a word of an earlier mystic, may be described in his language: "Jam non consilio *credens*, sed more eo perductus ut non tantum *credere* possim, sed nisi *credere* non possim."

"No proofs henceforth I seek for my belief;
For to such mind God's grace has lifted me
That I not only can believe, but now
Not to believe is quite impossible."

CHAPTER XIV

HOW TO THINK OF GOD

IT is impossible by any arguments absolutely to demonstrate the existence of God. Some may doubt. Those only who believe they have in their souls a consciousness of God can therein find the demonstration which the rest of us must lack. It is the privilege of the few, and it is not easy to convince others that this conscious apprehension of God as something other than themselves is not, or at least may not be, the product of a longing which finally creates within the mind the apparent fulfilment of its own desire. To be sure, we also have in our own sacred books, and in the sacred books of all religions, accounts of the intervention of God, or the gods, in a way that would be conclusive of the divine existence; but no such interventions appear now, and questions inevitably arise as to the trustworthiness of such accounts. Miracles have ceased to be a convincing proof of God; they need proof; and we are and must be satisfied to depend for our faith in the existence of God on those proofs which we have considered, and on such as have satisfied the searchers after God.

The common consent of mankind gives us the belief that there are one or more non-material superior existences, spiritual in their nature, which have power over material forces and over mankind. Those existences, called gods, or God, have knowledge of us, and can be appealed to, placated or provoked, and can do us good or harm. They may have passions, as do we, good or bad, or the one God may be infinitely and changelessly wise, powerful, and good. Mankind conceives of its deities or Deity as like itself, only far superior, its highest ideal of what is noble and worthy, or even as the spiritual impersonation of its evil passions. As humanity grows in ethical sense out of savagery its gods gain quality until we reach the conception of a single God, with no rival or competitor, infinitely wise and powerful, but also infinitely good. To him is ascribed the creation and the rule of the universe. In a sense it is true that man creates his God. His idea of God is of his own conception, and it grows in spirituality and moral quality with his own spiritual and moral growth.

Christendom possesses this highest conception of God, first reached by Judaism. But we have not seen God walking in our gardens. We have no such physical evidence of him as we have of each other, and it is impossible that we, or at least most of us, should have. We must be content, as in so many of our beliefs, with evidence

of the probable sort. But that probability may be enough to depend upon, enough for practical purposes; and such appears to me the evidence in support of God's existence drawn from the universe of nature. To me it seems clear that there must have been a great First Cause, that the world of matter did not create itself, but had a creator, and equally that its co-ordinated laws had a contriver. Equally, the evidence presented in earlier chapters makes me believe that the world of life and the world of mind were guided by a superior intelligence rather than that they happened to develop without intelligence or guidance.

If in this conclusion I am right, I must have already learned from his works what is the nature and what the qualities, attributes, of God. What are his attributes?

I do not see that this question need raise any great difficulty. We need not flounder about in self-made mazes wondering about the absolute, or refuse to cross in thought an unbridged gulf between our finite and his infinite. Why create the gulf? We have bodies and souls; we know matter and mind, not relationless and absolute, but related to time and space. We know nothing else; we have no reason to believe there is anything else. "Vain wisdom all and false philosophy." If our minds cannot comprehend the infinite they can at least apprehend it, and can understand that it is like what we know outside

of us, and are conscious of within ourselves, only more of it. We can know something of what God is, and be positive of it.

And, first, all power is embraced in the first Great Cause. The whole course and force of nature came out from him. To be sure, we have not been able to find any evidence in the ether of space that it is not coterminal and cotemporal with time and space, boundless and eternal as God; but we have also found that it has been subject to an exterior power which out of this ether has created all things. Ether was the formless and the void, the darkness upon the face of the deep, out of which God made light and the heaven and the earth. He that made all things is God. This is what we call omnipotence, for he that can do all this can do all things. This does not imply that he can do what in the nature of things it is impossible to do. Thus can God now cause that Woodrow Wilson, who was inaugurated President on March 4th, shall have been inaugurated on March 3d? Can God cause that March 4th shall have come before March 3d? Or that March 4th should be skipped, and there be no March 4th? Can he abolish time?

Equally the Intelligence which knew how to contrive the numberless multiformities of nebulæ and stars and solar systems, and equally the laws and forces of their constituent atoms; and, further, the vital powers which create plants and animals,

and could distribute intelligence and instinct to bee or man as needed, all appearing in due course under a system of law and a plan of development —that Intelligence must be without limit. It must cover all that can be known. It may not cover anything which in the nature of the case cannot be known, if such a thing there be; just as the divine omnipotence cannot do what is in essence impossible, as to make the three angles of a plane triangle equal to more than two right angles. Whether God, after giving freedom to a creature, can foresee what his every choice will be I am not sure. Nor is it important to decide that he can, for his wisdom is enough to meet any imaginable emergency; or he may choose to leave all things without interference to the operation of his wise laws and the free choices of his creatures. All that can be known he does know. This we call omniscience.

Another even more important quality or attribute assigned to the infinite power and intelligence whom we call God is goodness. Yet there are those, like John Stuart Mill, who have found in nature the evidences of a God of might and wisdom, but who could not, seeing the sin and suffering in his world, be assured of his stainless goodness. The assumed problem of a good God and a world of evil does not seem to me to need solving. That God is good is, I think, involved in his infinite wisdom. God would not be wise

if he were not good. I do not need to argue this to myself; nor am I affected by the fact that for us prudence and goodness seem sometimes to conflict, that to do right sometimes causes suffering and wrong. But the elements of our little arc are insufficient to compute and describe his infinite circle. Our temporary loss may be swallowed up in a larger gain. The hermit thrush may be killed by the hawk, but it had a busy, blissful life of sweet song, and it was best that thrush and lark and hawk and deer and wolf and man should die and make room for others of their kind; and the sum of their happiness was good. It was best that the law of life and death should rule, without exception for suffering's sake. The suffering was incidental; it was good to live.

> "For who would lose,
> Though full of pain, this intellectual being,
> These thoughts that wander through eternity,
> To perish rather, swallowed up and lost
> In the wide womb of uncreated night?"

It is the drift of life we must consider when we think of suffering, not its eddies; the whole orbit, not its epicycles; the rule, not its exceptions; and the prevailing rule and drift of life is not suffering, but enjoyment, so that life is sweet. The chief appeal of both religion and ethics is to well folks. And I hold that *moral* evil is not predominant. Even bad people are likely to do

more good things than bad. To be sure, they do many bad things; much sin is in the world, and a good God cannot be pleased with it; but I am not sure that he can help it. He cannot make a thing to be and not to be at the same time; and I am not clear that he can make men who shall be free and yet not free to sin. It would hardly be worth while to have a world and yet no place planned in it for free moral beings; not worth while to create man, and not let him sin as he chose. That is, as many have said before me, while it is clear that God might have refused to create, it is not clear that if he created beings with moral natures and possessed of free will, he could have excluded sin. And equally it is not clear that if God gave rules of law to the world of matter and the world of life, a reign of law that we can depend upon, he could have excluded suffering. The sum of enjoyment, and equally the sum of goodness, may be—I doubt not it is and will be—much greater than the by-products, the remnants, the offal, the slag and cinders of suffering and sin. The bad is sad, very sad, I know, but the good in fatherhood and motherhood and childhood, in love and fellowship and help, in health and useful work, is much greater; and I do not feel the need to solve studied riddles and "justify the ways of God to man." I find no difficulty in believing that God is good beyond limit, as well as powerful and wise.

These qualities of power, wisdom, and goodness belong not to matter, but to mind. When we then formulate our belief as to the nature of God we have already thought of him as a spirit, a real personality possessed of the same kind of mind as is ours, with intellect to know, feeling to love, and will to create. God is a spirit; there is no question of that.

But can he be more than a spirit? We have both spirit and body; can God have both? He is not matter as known to us, and in his activity he transcends and embraces all matter. Yet one exception to this statement we have observed. So far as we can judge, his infinity does not transcend the infinity of ether in space and time. Ether appears to be infinite in extent and infinite in past and future duration. Then it is conceivable that it may have a special relation to the infinite spirit. We may conceive of ether as the agency through which God works, just as our souls work through our bodies; or we might even, for the moment, ask whether ether can of itself be spiritual and of the nature of God. It will not be easy to accept the latter view if we allow the conclusion of most physicists at present that matter in its ultimate elements is simply a modification of ether. All the present studies of ether, with its various waves for transmitting force, tend to make it clear that its alliance is not with mind, but with the familiar forms of matter.

We may, to be sure, possibly think of ether as having special relations to the Supreme Spirit, but not as itself the Supreme Spirit; not, as Haeckel would have it, that ether is God. God's nature, shown by his attributes, is plainly that of spirit.

It is obviously of the nature of God as a self-existent being that his existence should be infinite in time. The necessity of his existence always has been and always will be. That is, he is the eternal God.

He would also of his own nature be universal in his being, in one place as well as another, covering all space. We know very little as to the way in which spirit localizes itself; but in whatever way, in whatever sort of consciousness or intelligence it acts, no place is exempt from the activity of a necessarily existent spirit. The necessity of his existence is universal. That is what we call the divine omnipresence.

How, then, am I to think of God? I think of him as the original substratum of the universe, the self-existent, co-eternal of eternity, that from which all came; yet not as an abstract, non-relationed essence, but as a real, concrete intelligence and will, that stands behind all material things which he has devised, created, and rules. How he rules them we may not know, except that he does it in accordance with the laws of nature. We see no exception to those laws, and to every

appearance nature has been put under them and automatically obeys them. So I do not think of God as the constantly active volitional agent in every smallest and largest attraction and repulsion of nature, but as author of its laws and presiding over them. I think of those laws as securing the beneficence of the seasons, and also the paroxysms of tornado and earthquake, and I do not think of these as separate and individual choices and volitions of God.

I think of God as infinitely good, as an intensely moral being, loving the right and by his nature pledged to its victory, and equally hating the wrong and pledged to its defeat. I think of him as faultlessly and redundantly good, actively so whether that activity is exercised by the process of his laws or by his supervision over them. Suffering is but the necessary and undesired by-product of his wise and good laws. Only sin is the alien act of man's hostile free will.

Thus I think of God as a spirit eternal, universal, pervasive, and active, as a personal being, in his power, wisdom and goodness. But the question must still arise as to the way of his relation to the world he rules. The mind constantly recurs to that other infinity apparently as pervasive as God, as eternal as God, which we call ether. What, then, is its relation to God?

I cannot know, but when I think of ether as the probable source of everything, of every atom

of matter in the universe, of earth and stars as made out of ether; and of every sort of force, not of light only, but of electricity and gravity as well, as depending on the strain of ether; the earth carried by ether about the sun, as well as the apple drawn to the ground; of every physical or chemical or vital activity resting in the eternal force of ether; of ether never displaced by matter but identified with it as the air is identified with its eddies or the ocean with its waves, it seems not unlikely that the Infinite Spirit somehow works in and through ether as our souls act through our bodies. Would it be illegitimate to think of ether as in a sense the body of God, God the spirit, and yet at the same time the universe God? I have no opinion. I do not believe such to be the fact, nor do I disbelieve it, for I have no evidence —it is a mere conjecture. Yet it seems somewhat plausible. At least we know that God does nothing outside of ether and its modifications. In ether he is omnipresent.

The conjecture is not pantheistic. It would be if God were not thought of as also a controlling spirit, as with us the mind rules the body. It is —is it not?—a fact that God lives and works in ether, as we live and work in our physical bodies. It would thus follow that other spirits and our own souls may yet live and act in a direct sense in God, in the same space, the same ether, the same God who fills all things.

And may we not wonder, and perhaps learn some day, whether the ether is not the medium in its strain by which our spirit, our will, acts on our physical structure? We know that it is through strain in the ether that physical movements are secured; why may not the mind act on and through ether? Are we quite sure that the mind is not itself a modification of ether? just as the electron is? Thus we might conceive of the beasts as having an ether soul to be compared with the low combining weight of hydrogen while the human soul is complex, like an organic molecule, and the vital soul of the tree is inert, like argon. We do not know, but at least the conjecture is plausible that, as the ether is only semimaterial, it may be that my mind creates a current, a wave, in the ether, and this semi-immaterial ether is the conducting-link between my immaterial mind and my material body. It is as good a conjecture as any, and is in line with phenomena not yet explained, in which, if a multitude of apparently well authenticated tales are true, telepathic influence has been conveyed from one mind to another far distant—wireless telegraphy through ether. I do not accept it as based on any real evidence, but I am allowed the conception of God as an infinite spirit, residing in infinite ether, acting in it, working through it, ether as really himself, as our bodies are ourselves, converting it into matter or mind, and controlling

it by his will. Thus I may dare to conceive of ether as in a sense the body of God, and may conjecture that when God made all things out of ether he made them not out of nothing, as men have been wont to say, but out of himself; and yet I would conceive of the ether out of which everything is made, as God only in the lower sense in which I speak of my body as myself, when it is only the organ by which the *I*, that is, my mind, reaches its purposes.

But who by searching can find out God? His infinity dazes us; his power and his wisdom awe us; and at the vision of his dread holiness we cry, "Woe is me," till the live coal from off the altar glows with his goodness, his boundless, endless mercy and love. Then the spaciousness of his existence, the mystery of his wisdom, and his resistless power all appear but as the serving satellites of his regnant goodness; and we, finite souls, dust in his balance, can only praise and pray. Thus it is, that when we would try in thought to compass God, thought rises to worship.

CHAPTER XV

DUTY AND DUTIES

THE doctrine of duty is a very large subject, and might properly require volumes to discuss it adequately. In a single chapter one can do no more than lay down some main principles.

Duty has a dual aspect. It has to do with the doer and with that to which the doing is done. There must be a subject and an object; and usually the object will be other than the subject, although it may be that one owes and performs duties which have relation solely to oneself.

As soon as one has relations to some one else duties begin; and duty becomes as primary, as obligatory, as necessary, as are geometrical truths. A person may be so stupid as not to see them, just as an ignorant person may not recognize a simple geometrical truth; but moral culture will bring out the applications of duty, and show what is right and what is wrong. There are no tribes so low that they do not recognize that there are obligations, and that some things are right and some other things wrong. The comprehensive law which embraces all duty is the exercise of

good-will, of love to others, with its corollary that ill-will, disregard of others' welfare, is wrong.

If we should choose to believe that duty rests in seeking enjoyment, or in the perfecting of one's own powers, or in obedience to the customs or laws of society, even as the words *ethics* and *morals* come from Greek and Latin words meaning *customs*, even so the customs are supposed to be right because for the welfare of society; or one's developing of himself is of value as it helps the community; or the enjoyment sought is the usual measure of benefit to others. It is the welfare of the commonwealth or of its members individually that duty requires us to consider.

In previous chapters we have considered God as the creator of the world. As soon as God created sentient life he had duties toward it. Before such creation, if there was any such time within eternity, he may be imagined as being alone, but having a nature which knew and approved, by anticipation, any duty which might arise. When he created, he created out of a sense of duty, of love to what he should create. It may not be easy to designate any particular duties he might have toward ether, or nebulæ, or the sun and moon, toward grass and trees; but as soon as intelligent human beings appeared, or in anticipation of them, duties developed. Duties are reciprocal; but God's duties to man whom he has made are prior to man's duties to God.

It is a very serious thing for us to attempt to measure God's obligation to his creatures, but at least we can say, notwithstanding our ignorance, as compared with his omniscience: "Shall not the Judge of all the earth do right?"

God's duties, be it, then, reverently spoken, must be embraced under the term of loving care. Other terms, such as justice, righteousness, holiness, express but incomplete phases of what *in toto* is love. So the best human figure under which to represent God's relation to his creatures is that of a father, not lord nor king. How God should exercise his fatherly love to us we cannot antecedently say; but we know he is good, and we know what he has done for us in nature. His obligation to us he has fulfilled by putting nature under beneficial laws that we can trust, and then bidding us depend on their certainty. Enough of these laws are so clear to the humblest understanding, those of the seasons and the growth of vegetation, that the lowest primitive savage could know them and live a happy and busy life. After only two hundred generations, if the life of man goes back six thousand years, or two thousand if the race has lived sixty thousand years, we have learned how to use more completely many of the occult laws of nature, and the millions of years yet to come will see manifold generations multiplying upon the earth with ever happier life. We may rest in the assurance that the heavenly

Father will do all that his wisdom sees is best for man made in his image; and we may indulge the eternal hope, notwithstanding the gift of free will, that somehow and at some time moral evil will drop out of the world. Physical suffering we may hope will continue as long as man has a body and can grow strong by patience and struggle.

While I must believe that the duties of a creator to his creatures are prior to the duties of the creature to the creator, yet it is the latter with which we are mostly concerned. We can depend upon it that what is right he will do, and we can leave that to him. Our chief concern is with our duties to him.

(*a*) I have said that the evidence which nature gives us of the existence of God is probable evidence, and not absolutely demonstrative, although the weight of probability seems to me to be such as to be practically conclusive. Now, in the case of action on probable evidence, two considerations must guide our conduct: one, the amount of evidence, whether great or small; and the other, the importance of the subject involved in the evidence. The stronger the evidence the greater the obligation; and equally, the seriousness of the subject must govern the attention we give to it. An unimportant conclusion, even though probable, may be slighted or neglected; but even a slight degree of probability on such a subject as this, the existence of God, even were

there a larger probability against it, could not prudently or rightly be overlooked, much more with the prevailing evidence that there exists a God with whom we have to do. It is a first duty for man to recognize his relation to the infinite will and infinite goodness above him. One who does not concern himself with such a God in whom he yet believes acts as if he were mad.

(*b*) The next duty we have toward the God who is our Father is that of reverence and love, reverence for his greatness, love answering to his love. These feelings are much more than a sense of grandeur or an approval of goodness; they are directed to God as personal, loving, fatherly, and respond with love to his love. If we believe in such a God, and feel so toward him, we shall express ourselves in honor shown to him and in the filial fellowship with him of prayer and praise.

(*c*) Both prudence and duty—for prudence is a part of duty—require that we should act in such a way as to secure the good-will of such a God. We give him a character that rises to our highest ideal of goodness. Our duty is to come up to that ideal, as far as we can, and so please him. We also allow to his infinite goodness the support of infinite wisdom and power. If we are his creatures, dependent on him, it is simple prudence to make him our friend. He will love our goodness; and if we are evil his infinite nature will oppose us and defeat us; and a sad thing it

would be to make ourselves enemies of the loving, yet holy God. Nor is this the attitude of selfishness. Our own love of goodness would ally us with the God of all goodness, and would compel and obligate us to love and follow him. When we love and serve infinite goodness as represented in God, we are loving our own ideal creation. More than that, if there were no God we should be required by our own sense of right to follow goodness and a merely ideal God in a stern and stoic way. A man has no right, even apart from God, to disobey his ideal of justice and kindness and love. Much more when he believes in God, and such a God, will it be his duty to reverence him, to learn his will and to obey him, both because he is the infinite God and because one's belief in the moral character of God corresponds with his own highest ideals of what is right. But beyond obedience due to one's own highest ideals, which is ethics, will be obedience and service due to God himself, which is religion.

As a part of the duty to act in such a way as to secure the good-will of God, will be the obligation, also supported by self-interest, to learn his will. To be sure, the will of God will be identical with the requirements of our own highest moral standards, but those standards alone, obeyed or disobeyed, have, apart from God, no force of benefit or loss beyond one's satisfaction or dissatisfaction with himself, the approval or disapproval

of one's fellow men, the laws of one's country and the laws of nature. But disobedience to one's ethical standards may be secret and find no punishment, only the pleasure or success desired; while one's obedience may involve great inconvenience, or, as has often been the case, may be at the sacrifice of life. In such cases it will be a very strenuous soul, and an unusual one, which will obey the impulse of its own sense of duty unsupported by the sense of loyalty to a superior power who must be obeyed. Such souls there doubtless are who will do right without regard to God:

> "There are who ask not if thine eye
> Be on them, who in love and truth
> Where no misgiving is rely
> Upon the genial sense of youth;
> Glad hearts without reproach or blot
> Who do Thy work and know it not."

But those who believe in God usually need to add to the incitements of their own moral nature a sense of the sure purpose of God to maintain in his own rule of the universe the moral laws which he obeys and wills to have obeyed by his creatures. Inasmuch as the belief in God as a personal spirit is closely related to belief in the future existence of our own personal souls, one who believes in God and immortality must seek to know what is right, to keep it in mind, to obey

it in conduct, because it is the will of God, and he must have regard to his verdict and award; and that is a consideration far higher than that which we read in the noble words of Cicero written to his friend Atticus, when anxious about his duty to the falling state: "What will history say of me six hundred years hence? That is a thing which I fear much more than the petty group of those who are alive to-day." Those who fail to keep God and the eternal life before them are likely to sink into that hopeless and irresolute attitude so well expressed by Paul, "If the dead rise not," "let us eat and drink, for to-morrow we die."

(*d*) Other duties to God may arise or seem to arise, which follow only indirectly from the knowledge of his existence, but they are formal, ceremonial, and not basic. One may properly believe that God requires the sacrifice of oxen, sheep, and turtle-doves, or that he demands payment of tithes, or worship in a temple, or the hallowing of a day, or a certain manner and time of prayer. These will then be duties toward God, and will be purely religious. The obligation to perform these acts will depend on the evidence we have that God requires them. They are not fundamental; a change as to the evidence of their being the will of God will change the duty. On these subjects we may differ. "Let every man be fully persuaded in his own mind." Some such duties may arise as the natural concomitant of belief in God.

Particularly the privilege of prayer may also be a duty, and also some form of public worship and fellowship in work to give a knowledge of God to those ignorant of him, and to persuade those who neglect him to recognize and obey him. Also those duties which are based on our relation to our fellow men, usually embraced under the term morals, are religious duties in so far as they are seen to be required by the will of God and are performed in obedience to him. Accordingly in the higher sense all duty is religion, as in a wider sense all religion is duty.

CHAPTER XVI

DUTIES BETWEEN MAN AND MAN

I HAVE already recorded my conviction that the sense of right and wrong is inherent in our nature, and is not anything to be argued and proved. The rule of right, as I have said, is good-will, benevolence, love; as the absence of these, or the presence of their opposites, ill will, malevolence, selfishness, is of the essence of wrong. It has also been mentioned that duties arise as soon as relations arise between intelligent beings. The previous chapter has considered the reciprocal duties of God and man; the present chapter is concerned with the duties of men to each other. To be sure, some duties to our fellow men may depend on our duty to God, or may be evidenced by such duty to God, in which case they will belong both to religion and to morals. Such would be a duty to bring men to the knowledge of God; but independently of and apart from God, duty to our human brothers arises of itself and would exist if there were no God.

This sense of duty we call conscience. I would define it, in its more general meaning, as including both the sense of obligation to show good-

will to others, whether God or man, and, next, the more or less intelligent effort to obey that sense of obligation. Properly it is only the former element which is conscience, while the latter is guided by reason, and may be mistaken. The sense of obligation may be very strong, and is always imperative, while reason may be wofully mistaken as to what God requires, or what would be of benefit to mankind. Men have believed that God required the sacrifice to him of every first-born child, and the father and mother properly obeyed their conscience in the hideous rite. A multitude of such infants have lately been found in the excavation of Amorite cities of Palestine.

Thus what is right in one generation becomes wrong in another, owing to better views, under new conditions, of what is of benefit to humanity. Even from our fathers' days we have learned this. Fifty years ago multitudes in our own country believed slavery to be right, an ordinance of God, and our Constitution indorsed it; now the whole world condemns it; and, coming down to our own times, we have only to read our political platforms to learn that financial and commercial procedures which nobody condemned, and the best of men engaged in, are now regarded as wrong and are made illegal. We are now in the very welter of discussion as to moral questions, by which I do not mean the obligation to do right,

to do what is for the public weal, but the question what *is* for the public welfare, which when found we will obey. With the changing condition of society I expect great changes in our ideas of what is right, and those changes may be very radical. All this subject of duty to our neighbor comes under the head of morals, by which I mean the exercise of duties toward our fellow men; while *ethics* has a wider meaning, and covers the whole realm of duty, theoretic or practical, to mankind or to any other beings whatever.

Under an analysis of our definition of morals, as the exercise of the duty of good-will to our fellow men, we may embrace the individual duties which we should exercise; and we may consider them as duties to oneself, duties to individuals generally, duties to our families, duties to the social or business association of which we are a part, duties to our town, state, or nation, and duties to the world as a whole.

(*a*) And first our duties to ourselves. These depend chiefly on their bearing upon our ability to perform in the best way our duties to others. All is embraced in the duty to make the very best of our powers so that we can use them to the greatest advantage for the benefit of others. It means the preservation of a clean, pure, and healthy body, such as will disgust no one, and infect no one; and this means the planning for a long life of usefulness. It means the abstention

from alcoholics and narcotics, and with this I would include tobacco as well as alcohol and opium. It means abundance of food, abundance of exercise, and abundance of sleep; it does not mean time wasted in any of these good things. There must be recreation and pleasant discourse, but these are subsidiary to larger purposes.

It means still more the very best attainable culture of our minds by education, and of our wills by the exercise of our powers, so that we may learn to do in the best way possible to us the duties incumbent upon us. Those duties differ, as our natural powers differ. There is great difference between us in mind as well as body, and some are fitted to lead well, and others to follow well. Particularly in youth is it our duty to use all our effort to equip ourselves for future service. An infant can do nothing but eat and sleep and grow; the main duties of the child—not by any means all—are to grow in mental power and in moral purpose by study and by useful labor, getting ready to fill as high a field of service as possible. That field may be as leader of men, or it may be in filling quite as conscientiously some of those ordinary and limited fields of service which in the nature of things must come to most of us. With what we can reach we must be satisfied, and fortunately are satisfied. I know I am not competent to be President of the United States, or president of a bank or of a board of

trade, and I don't envy such fortunate people or envy their position or wealth. I believe that for one's own character, to make the best of oneself, every one—artisan, toiler, professional man, master, mistress, or servant—should give his service not stintedly, but generously and liberally, and with a happy mind.

I believe that to cultivate one's body or mind or soul just for one's own pleasure or improvement is unworthy and selfish. One can be an intellectual as well as a physical inebriate, all intoxicated with his own selfish satisfaction, and, because useless to others, stunted in his own soul, drunk with conceit of himself, incapable of measuring larger values. One's duty to oneself forbids him to live such a life.

(*b*) Our duties to other human beings generally may be briefly stated. They are embraced in what has been called the love of benevolence as distinguished from the love of complaisance, that is, of general good-will as distinguished from special affection. It means that as we have opportunity we will do such service as we can, even if it be but giving a smile, while it may be as much as the Samaritan did for the man who fell among thieves.

(*c*) The family is the most important, the most intimate unit of which society is composed, and no duties are more important than those related to the family. On the family rests the continua-

tion of the human race upon the earth; and as humanity is more of value than all the rest of the universe we know put together, its succession of births to replace deaths is of the first importance, not second even to that of preserving individual life. It is desirable, then, that all should marry, and it is desirable and necessary that, in order to maintain the present population, even without increase, every married pair should have three children, two to replace themselves, and one more to allow for the chance that one-third will die before reaching the age of marriage. Of course many of marriageable age will unfortunately never marry, and more than three children will be necessary for each couple in order to fill up their lack of duty. I believe it is desirable that marriage should not be long delayed after the parties reach marriageable age, and that it is a great misfortune that present social conditions tend to delay marriage to an age when the parties are more averse to having children, and have learned how prudently to limit their number. Particularly do I believe it is the duty of the more ambitious and better educated to desire large families. The abler in brain and body a man and wife, the more imperative their duty to leave many to inherit their ability. This duty is higher than any duty to themselves.

I believe that the laws of marriage belong to the state and not to the church, except as all

things are to be judged by the church. We have reached the blessed condition of peace in which the number of the sexes is measurably equalized and monogamy prevails. But in a barbarous period, when the men were killed off in war, it was best for the state that polygamy should provide homes for the superfluous women, that their children might replace the loss by war. Monogamy is best for us now, but that implies that somehow early marriage for all of reasonable health should be provided, and possibly assured. It is the advantage to society that should fix legislation as to marriage, and also divorce. While the rights of parents and children should be rigidly protected, I can see no reason why divorce should not be allowed in cases in which, by the fault of either party, marriage proves a curse rather than a blessing. Unfaithfulness to the marriage bond is an injustice to the innocent party, and a proper cause for divorce; and other acts of injustice, such as cruelty or desertion, are just as truly such. I also believe that the maintenance of freely accessible houses of prostitution in our cities is a fearful evil, that it is a shocking impediment to marriage, a distributer of disease, and that its existence anywhere is a burning disgrace to the community.

The virtues that attend marriage are familiar to us—affection, chastity, parental care, and thrift. In marriages, husband and wife overcome selfish-

ness by loving each other and their children more than they love themselves. It is a narrow circle, but within that circle it cultivates the sweetest virtues, and educates each for the wider expressions of good-will.

(*d*) But it is a stingy soul that confines its affections within the limits of a single family. We ought to be interested in our neighbors. Our business and our residence embrace others than the members of our own households. We are in churches, clubs, societies, unions, established for the very purpose of helping one another. Every such fellowship enlarges or should enlarge the heart. It need not dissipate the love of family, but it tends to make family love less selfish, and teaches us to consider the duty of serving others. Particularly those labor organizations which are formed for the purpose of mutual support and the defense of the interests of the members, teach loyalty and self-sacrifice, and are of moral benefit to the members when kept within legitimate limits. But what is generous toward fellow members may become ungenerous and cruel in its belligerent treatment of those not members. We have seen such unions, whose purpose is beautiful because helpful, perverted to help each other by outrage and murder. But that is the old story which the war spirit has taught our people, that they can benefit themselves by slaughtering by the thousand those of other nations.

(*e*) That is a yet wider loyalty which we properly cultivate as members of a town, city, state, or nation, and we call it civic pride or patriotism. It is a true adage that it is sweet and beautiful to die for one's country. A noble virtue is patriotism, because it represents a wide expansion of good-will toward the entire body of citizens of which the patriot is one; and it is displayed in all its glory in the event of war, which risks the sacrifice of life itself. And yet its perversion is the occasion of more wrongs than almost anything else. It teaches us, too often, in the love of our own people to hate those of another race or nation, Chinese, Italians, Irishmen, Jews, Negroes; and in war it allows of every atrocity. It is this narrow, pestiferous perversion of the patriotic spirit which shows itself in race pride and race prejudice, which makes for our nation all its troubles in the South, in Porto Rico, and the Philippines; with China and Japan, and which gives England her troubles in India and South Africa, and which in war makes nations hate and murder each other. But at times the beautiful spirit of patriotism is met and conquered, when it descends to narrowness, by the equally beautiful and equally narrow spirit of class loyalty, as when in France and Germany, forgetting their old national hostilities, the Socialists met and declared that they would allow no war between the nations, for the love of humanity is greater than

the love of nation. Yet in the terrible European war we have seen this more generous class loyalty swept aside by a torrent of perverse patriotism.

(*f*) So I come back where I began, to the good-will toward all men individually and generally, as the true inclusive virtue and duty. Unperverted, the love of family, of class, of town or nation is beautiful, but true virtue is not limited. Limit is vice. The enlarged soul will have interests in all the nations of the earth, will rejoice to learn of their progress and welfare, will seek in some way to bring them into a better knowledge of God, to a truer education, to a fuller liberty, and will not confine one's interest to one's own family, section, or nation. Herein lies the obligation of Christian missions, a chief, if not the chief duty of those who accept the teachings of love taught us by our Lord, and who believe Christianity is the best of all boons for the world. Here duty to man coincides with duty to God. It is not limited to carrying the blessings of religion to the people of our own country, called home missions; it is far greater than that, for it embraces the most distant, the most benighted, the least attractive of all earth's races, because its love is unlimited, is all-embracing. It sends those who can go to redeem paganism or savagery. It is the radiant blossom of Christianity, the broadest expression of essential and undistinguishing love. It is the performance of the fullest duty to all our

brother men, and also of duty to Him who asks: "Whom shall I send, and who will go for us?"

Yet ever with this proviso must we judge of duty, that it must be measured by opportunity. It is only the privilege of education and culture that allows a man to embrace the whole world intelligently in the arms of his love. One who is ignorant of all beyond the meagre circuit of his vision can love only what he sees. Then let him love his ball club, or his shopmates up to his little limit. That is his virtue, his duty, and let his children go to school, study geography, read the foreign news in the daily paper, and be better than their fathers, not because they love better, but because they love more widely.

CHAPTER XVII

ESSENTIALS AND NON-ESSENTIALS IN RELIGION

THERE are many doctrines, or dogmas, that cannot be included in so restricted a series of chapters as the present on "What I Believe and Why," because it is not important to have any belief about them; and of some of them it is impossible to have evidence, other than that which is drawn from a mechanical view of Scripture; and others as to which we may profitably leave knowledge to God, as the knowledge can have no concern to us, but only to him.

Of those of which it is not important that we should have any belief, we may take one commonly held in the Catholic Church, that of the Assumption of the Virgin Mary, that is, the doctrine that came into vogue about the time of the Nestorian controversy, and the development of honor to Mary as "the mother of God," but which had its origin in a Gnostic heresy, and held that she was taken up, both body and soul, by angels into heaven. There is not a bit of evidence for it from Scripture or from any other source. It is a pure invention of fancy.

Equally of no importance to us, and equally

without Biblical or other evidence, is the dogma of the immaculate conception of the Virgin Mary, a belief which grew out of the notion that the mother of our Lord must have been too immaculate to have inherited any stain of original sin from our first parents. It depends on another doctrine, that of the original inherited corruption of human nature from Adam, which itself needs proof.

Some other doctrines taught in certain creeds have no proof whatever, but would be of importance if true. Such is that propounded by the Vatican Council declaring the infallibility of the Pope, in his official declarations of doctrine. If he is thus infallible it is important that we should know it. But there being no proof of it, and its unlikelihood being very great, it is not important to dwell upon it. In a similar class we may cite the value of indulgences and the doctrine of purgatory.

It is desirable for us to know as many true things as possible, but we cannot know them all. Some are important and some unimportant. As to some, if we do not know them correctly it is death to us, while as to others we may err without mischief. It is also desirable that we should do as many good things as possible, but some good things it is of much more importance that we should do than that we should do others. It is more important to save a child's life than a dog's.

In the field of theology, which has to do with beliefs, and in that of religion, which has to do with character and conduct, there are doctrines or duties of various grades of value, some important, some of little importance; and, what is more to the purpose, the duties relating to conduct are vastly more important than the beliefs. We value the ignorant man, if good, vastly more than the knowing man, if bad. Virtue is more than learning, but the complete man has both.

We may not be under obligation to have knowledge; we are under obligation to have character. And character is simple, within the reach of everybody. It is nothing more than to do the most good things one can, but only within the limits of one's knowledge. His knowledge may be very imperfect, and his belief quite wrong, but a man must follow according to what he knows. Abraham, as the story goes, thought it his duty, because he believed God required it, to kill his first-born, and he prepared to do it, as thousands of Canaanites actually did. It was his duty. Of course, God never commanded any such thing —he could not do it, but that did not make the action wrong; for misbelief made it right to lift the knife. Thus a thousand cruel acts in pagan worship are made pious and praiseworthy, and are doubtless acceptable to God. It is a comfort to think so, while we try to enlighten ignorance and make the world happier and better.

As all conduct and duty depend on our relations to others, to God or our fellow men, our duties will depend on what we know or believe about them. If our circumstances have allowed us to believe in God, we shall have very serious duties toward him; and our duties toward our fellow men will vary in importance according to what we know of them. Fortunately, our principal duty toward God coincides with our duty to our fellow men, for it must be his wish, implanted in our consciences, that we should do them good. That is the larger part of our duty to God; and the obligation to do it for him adds immense emphasis to sense of obligation involved in the natural virtue of altruism. The bare stoical acceptance of altruism instead of self-love will seem frail and cold unless it is stimulated by belief that it is the will of God. Religious people ought to be, and I think they are, the leaders in all service for good order and public welfare.

Duties directed immediately toward God alone are comparatively few, and, I may say, less essential. We have done our best for him when we have done our best for his creatures. We cannot add to his goodness or wisdom or happiness. All we can do is to tell him that we love him and will do his will, and we can also ask him to do what we know he will do wisely. He has made laws for the conduct of his world, and those laws he will not break; but I do not see

why he cannot guide their operation, even as we can, and as I believe he has done through the whole process of the evolution of this and all worlds.

Beyond such prayer and grateful praise I can think of no special act of service we can do directly for God alone unless it be in certain forms of public worship, and even those have their advantage in fellowship with others. We can observe the Sabbath because we believe he commanded it; or we can engage in certain ceremonies or sacraments as ordained by him, but these are all mere forms and ordinances, appointed for their value to us and not valuable in themselves. If the value fails then the observance vanishes. They are but of secondary importance, for the one essential worship toward God is to worship him in the spirit and in truth.

When we pass from the realm of conduct and duty to that of knowledge and belief, the case is not so simple. There are many grades of evidence leading to more or less assurance of belief, and grades of importance of our theological doctrines. In his remarkable "Self-Review," written in his old age, Richard Baxter, after telling how his own beliefs had been modified since youth, makes the following very instructive gradation of certainties:

> My certainty that I am a man, is before my certainty that there is a God, for *quod facit notum est magis notum :*

my certainty that there is a God is greater than my certainty that he requireth love and holiness of his creature: my certainty of this is greater than my certainty of the life of reward and punishment hereafter: my certainty of that is greater than my certainty of the endless duration of it, and of the immortality of individuate souls: my certainty of the Deity is greater than my certainty of the Christian faith: my certainty of the Christian faith, in its essentials, is greater than my certainty of the perfection and infallibility of all the Holy Scriptures: my certainty of that is greater than my certainty of the meaning of many particular texts, and so of the truth of many particular doctrines, or of the canonicalness of some certain books. So that as you see by what gradations my understanding doth proceed, so also my certainty differeth as the evidences differ. And they that have attained to greater perfection, and a higher degree of certainty than I, should pity me and produce their evidence to help me.

In this quotation it is suggested that there is a gradation also of the relative importance of various doctrines which have found a place in creeds.

The first by far in importance of all religious beliefs is belief in the existence of God; for on belief in God all other religious beliefs rest, and, what is more important, all religious duties of conduct. While it is of much more importance to be good than to believe correctly in God, or to believe at all in him, yet a belief in an infinite God of boundless goodness and holiness must have the effect which the vision had on Isaiah, who replied to the call of God and the cry of the world: "Here am I; send me."

Following Richard Baxter, I recur to some of our more or less accepted Christian doctrines which depend on our belief in God. Just as our belief in God must rest on good, rational evidence, so all our religious beliefs which depend on it must be supported by evidence. Reason is always arbiter. For children, and for those who are children in faith, fed with milk and not with meat, it is enough to take the word of the church, but not so for the teachers of the church nor for any one else who has learned to think for himself and has the opportunity to do it. I take it that those who formulated our creeds were mere men like us, and did not know as much as we do and could not possibly know as much. We have more science, more knowledge of history and philosophy than they, and can judge and criticise on matters of belief better than they. I reject and resent the idea that my belief is to be dictated to me by anybody or by any church. To my own master, God, and to him alone, I stand or fall. In matters of morals as well as of fact I must stand on my own conscience, no matter what the church says, or what the law says, or what the Bible says, or what I am told anywhere or by anybody that God says. I will search and get evidence from all these and from every source, but in the end my best decision is final and supreme; and so is every man's.

For illustrations of more or less accepted Christian doctrines let us take the authority of the

Bible. I take it that the important thing in it is its truth, or the true things in it. Some hold that it is so fully inspired from God that everything in it is true. If such were the case it would be a great saving of thought. But we know that cannot be so, for the world was not made in six days, and there was no such universal flood as is described, and the multiplicity of languages did not originate in Babel, and the second coming of our Lord did not occur "in this generation," and God did not send "a lying spirit" to deceive Ahab, and they were not blessed who dashed the "little ones against the stones." But there may be a degree of divine guidance and inspiration which does not wholly swamp a man's idiosyncrasies and ignorance, and it is the truth in the Bible that is of enormous value; and what is truth and what is error we have to judge for ourselves; and so far as I can judge, no one doctrine of inspiration is of much importance, for we always have to check its statements by our own study of historical evidence and our ethical sense. For the important thing is the real truth, not the way God told the truth or allowed the error to be mixed with the truth. That is his knowledge and not ours; and a stiff doctrine of inspiration has driven not a few souls away from the Christian faith.

Believing in God, the belief in his absolute goodness and love is of the greatest importance.

Jesus taught that God is to be addressed as our father rather than as king. His love to us is a father's love. Trusting in his love, other doctrines taught of old and even now are of no serious importance, particularly if they do not at all affect us or our conduct, but relate to subjects on which God only has knowledge. Such is the doctrine of the division of the divine nature into three persons, each of which is the fulness of God, as taught in the Nicene and Athanasian creeds. Whether this is true or not, God only knows and we know not. We can have no knowledge of it except from the Scriptures as believed to contain a revelation on the subject from God. But students of the Bible differ as to what it teaches, and various views as to its teaching can honestly be held. If we believe in three persons after Athanasius, or in three phases after Sabellius, or in one undifferentiated God after Arius, makes no serious difference, for if we love and serve God just the same, God will surely love us, however we may have mistaken in a matter that does not concern us, but concerns only God. There is a creed which sends to hell those that differ from its doctrine, but its statement that such will without doubt perish everlastingly is an impious lie, an insult to God, a denial of his goodness.

Closely allied to this is the doctrine that Jesus while on earth was the second person in the Trinity, containing in himself full Godhead, and

this teaching many draw from the Bible. As to whether this is a fact, Christians differ, although on this, as on the matter of the Trinity, the large majority accept it. Whether true or not is a question partly of history, partly of psychology, and the evidence is wholly found in Scripture, and is variously interpreted; and our conclusion is affected by the weight we put on a doctrine of inspiration. As a matter of history or psychology, this question of the nature of Jesus Christ, whether fully or only mediately and partially divine, or whether he was only an extraordinary human teacher of religion, is very interesting, but cannot be of supreme importance to us; for whichever view we take of it, our duty remains the same, and the honest believer, whatever his conclusion, must be equally acceptable to a good God. God must love goodness wherever it is and whatever its intellectual mistakes, and he cannot help loving it. It is not necessary for us to know just how much divinity was in Jesus. That is God's affair rather than ours.

And this connects itself with the doctrine of the Atonement, on which theologians have guessed so much and have imposed so much on others. The question which the doctrine of the Atonement presumes to answer is, How does God manage to forgive sin? What satisfaction for sin does God require? Men have differed immensely on this subject, defending, all of them,

their view from the Bible. But only God knows, and we have pretty much ceased to discuss this question, and we are coming to leave it to God. The question is not important, except as it assumes, to begin with, that some satisfaction is necessary. There may be; there may not be, any more than the father in the parable of the Prodigal Son required satisfaction before he should welcome the son with a ring and the fatted calf.

The doctrine of the immortality of the soul is one of vital importance, not because our duty to be good would be any different if we believed the soul not to be immortal, but because disbelief in it would lead a multitude of careless souls, perhaps most of us, to say with Paul's too hasty language: "If the dead are not raised let us eat and drink, for to-morrow we die." But yet the nature of that future life is something that we can know very little or nothing of from any light of nature, and the purely figurative language of Scripture leaves us with little more than the conclusion which nature gives us, that the God of all goodness will do what is just and right. It is a remarkable fact, accordingly, that teachers of the Christian religion have very nearly ceased to preach heaven and hell to the people; and it must be because they think the doctrine of future rewards and punishments less important and less definitely certain than their fathers did. They now emphasize other persuasives to a right life.

The doctrines much discussed years ago of the freedom of the will and the divine decrees appear to me of little practical importance. They divided the Methodists from the Calvinists, and now nobody is much interested in them; and yet the old division of the denominations continues, when the occasion for it has passed. It was thought that if God decreed all our acts, then our responsibility was all gone, and with it virtue and vice; but we know better. We see that there was a flaw somewhere, and where it was we care little, for the conflict is over. As with so many of these questions, it is none of our business how God made his plans or what he planned. That is all God's business. Our business is to be good like God.

There was an old doctrine of congenital total depravity, of inherited sin that came down to us by human nature corrupted in Adam. I don't hear it much preached now, but it is yet in venerated creeds. One reason for its disappearance is because we have ceased to believe that there was such a man as Adam, or if there was, that we could possibly have sinned in him. And we find it impossible to believe in total depravity from birth, resulting from a nature corrupted by one disobedience of Adam. At any rate, the series of doctrines related thereto appears to me to be, for the Christian life, of little practical importance. We know that we are free, and we know the obligations of right and the criminality of wrong;

and that is important. We do not need any more to argue, as Doctor Emmons did, that sin consists in sinning. Of course it does, and in nothing else.

When I say that in my thinking I distinguish essentials from non-essentials, in belief as well as in duty, and that only duty is supremely essential, I do not mean to say that these less essential, less important beliefs or questions are not worth serious thought, whether mine or others'. Anything as serious as religion is worth serious thought. To one who sees in the Bible much more of revelation and much less of evolution than I do, it will seem of much more importance than to me to study the last hidden meaning there is in that revelation, and the last just deductions from it. Such a one will be much more concerned than am I to understand the mystery of the Trinity which he draws out of its language, or the wonder of the Atonement, or the divinity of Christ, on which the Atonement rests. Equally one who holds that the voice of the church in its councils and creeds is as binding as inspiration on our beliefs, will regard as very important dogmas which I hold to be of little value or none at all, or even as untrue. Yet even so, as Richard Baxter teaches us, the belief in the council, or the church, or the inspiration is of a nature higher than the belief in its pronouncements, and it is best for them, and for me, to consider very carefully the

arguments on which that higher belief rests. Especially the doctrine of inspiration, which in its stricter form binds us to believe as true and right, on the authority of God, whatever we find in our Scriptures, requires at this day renewed and impartial study.

CHAPTER XVIII

THE HEBREW SCRIPTURES

I MIGHT, perhaps, after a study of the evidence of theism, and a statement far too brief of the basis and rule of duty, here end my discussion of belief and the reasons of belief, for all that is absolutely essential in religion and morals has now been reached if not covered. For it is incredible that a good God would not look with favor on a good man, who tried to live a life of good-will to his fellow men and of honor toward God; for "what doth the Lord thy God require of thee" beyond this? For we may be sure that the abundant good-will of God will be toward such a candid soul, even if he knew no more and believed no more than this. But some further discussion is needed, both because much more is believed and often demanded, and also because further religious faith has been of great service in keeping men in the path of duty.

Passing, then, to the subject of Scripture, I observe that the adherents of a number of religions have books, or a collection of books, which they regard as sacred and authoritative. Chief among these religions are Hinduism, with its

Vedas; Buddhism, with its Tripitaka, or Threefold Path; Zoroastrianism, with the Avesta; Hebraism, with the Old Testament; Christianity, which adds the New Testament, while retaining the Jewish Scriptures; and Mohammedanism, with the Koran; the old Egyptian Book of the Dead, and a long series of Babylonian hymns, and a multitude of other holy books, that have originated, some of them, as late even as our own day, of which our own country has produced its full share, such as the Scriptures of Mormonism and Christian Science, while Persia has within a century given us the holy books of the Babists. Because the religion in which I have been educated and to which I have adhered is Christianity, I am obliged with great conciseness to give some reasons why its Sacred Books are superior to any others, and what is the nature of the authority on which they rest.

I can immediately dismiss the religion of the Vedas, for it is polytheistic. That excludes it from comparison; it is plainly untrue and unworthy.

Buddhism comes next. That also must be dismissed for a different reason. The central aim which it presents to its adherents is that they rid themselves of desire and ambition and feeling and hope, since all existence is bad, and the ultimate goal is absorption of being in the universal infinite; and this is to be achieved by

a series of incarnations of successive lives of renunciation of pleasures. It appears to me to be a hopeless and hateful religion which offers no sort of evidence for its incarnations.

Zoroastrianism is a great advance on either of the two religions of India. It is so impressed with the conflict of good and evil in the world that it concludes there must be two mighty spirits, each supreme in his sphere, the utterly good Ahura Mazda, and the utterly bad Ahriman. These two are independent in their being, and so not infinite either in power or wisdom, for neither can destroy the other, at least during the present dispensation. Ahura Mazda created the world and all things in it good; he also created good spirits to rule the universe, what we would call angels and archangels. But whatever he created that was good was offset by corresponding evil creations by Ahriman, evil spirits, storms, diseases, wars, etc. Fire was the emblem of the good god, and sacrifices were offered to him. Much was made of purity of life, but of this, ritual purity was a great part—even the earth must be freed from defilement. There is a judgment after death, and also a final judgment, after which those who have been in hell will endure a limited further punishment, until all things will be restored by the deliverance of a Saviour. Then Ahura Mazda will destroy Ahriman, the good spirits will each destroy his evil counterpart, the

icy mountains will be levelled to fertile plains, and a new dispensation of righteousness will reign on the earth. There is much in this like Judaism and Christianity, but the dualistic element in it, although the power of Ahriman is finally overcome, together with its excessive ritualism, makes it, noble religion though it is, far inferior to Judaism or Christianity. Unfortunately we do not possess the original Zoroastrian writings, only texts of perhaps eight centuries after Christ, and we do not certainly know whether in the case of elements common to both, the Jewish religion borrowed from the Persian or the reverse.

The Jewish religion knows only one supreme God, creator of all things and of all beings. He is the infinitely wise and good God. This is its great excellence, and it accordingly insists on justice and righteousness. It had in early times a full ritual of sacrifices, but its ritualism mainly ended with the destruction of the Temple. It has in its Scriptures no clear doctrine of a future life of reward or punishment, but there are intimations of it in its later sacred books, and its Apocryphal books are familiar with heaven and hell and with the activities of angels and devils. Present-day Judaism emphasizes the existence of God and the bearings of duty on this world, but pays little attention to the next. It retains the Mosaic legislation, with the observance of the seventh day and the feast days, but omits the sacrifices.

While at present circumcision is universally retained as a distinctive rite, the more advanced keep nothing else except it be theism, and their religion is little more than ethical culture added to racial nationalism. In its stricter usage I cannot accept any of its ritualism as belonging to a pure religion, and in its more radical form it is scarcely a religion. Even so it is a racial religion, based on a rite.

Mohammedanism is, like Judaism, purely monotheistic, and is the religion proclaimed by a single teacher, Mohammed, who got his ideas from a very imperfect apprehension of Judaism and Christianity, with influences from the neighboring paganism. It is a religion of force, conquering by the sword, and it favors polygamy. Its notions of the future life are gross, and have borrowed much from Zoroastrianism as to heaven and hell and the judgment of the dead. It can be dismissed as inferior to Christianity, although relieved of nearly all Hebraic ritualism. Of all the world religions Christianity in its various forms, or at least in its purest forms and in the character of its Sacred Books is easily the best. It holds to the personal and supreme God of Judaism; it requires only the simplest ritual observances; it magnifies justice and holiness, but it magnifies more the love of God as Father of his children the world over, the supremacy of love over justice; and as Lord and Master it

presents Jesus Christ who revealed God to the world; and it promises heaven to the good and threatens hell to the wicked. It expects the reign of righteousness on earth and a final judgment. It has its various schools of thought which emphasize or discredit various more or less distinctive doctrines, so that it is not possible to give a common creed; for what some would hold to be absolutely essential, others who equally claim and are allowed the name of Christian would deny.

Christianity accepts the thirty-nine Sacred Books of Judaism and adds to them the twenty-seven books of the New Testament. As I see no reason to accept the sacred books of other religions as having any binding authority on me, it will be requisite to consider only what I must believe as to the authority of these Jewish and Christian Scriptures.

There has come down to us by tradition and education a general belief in the Scriptures of the Old and New Testaments as having been given to us by revelation from God, or, at least, by writers inspired from God to give us true instruction as to religious history and duty. As to the degree and nature of that inspiration Christians differ. The value of a doctrine of inspiration is to assure to us the truth, and so the authority of the books inspired. The truth is the important thing, and the inspiration is supposed

to put the seal upon the truth and forbid doubt. It is the truth in them that is of value.

The question now to be considered is that of the actual inspiration of Scripture, or of its nature and extent. The old view was that these books were so fully inspired by the Holy Ghost that absolutely no error of any sort is to be found in them. Few intelligent people, at least among Protestants, still adhere to this inherited view, while all Catholics are obliged to hold the strict doctrine of the church on this subject. We have full right to judge of the inspiration of our Scriptures, and no church has the right to impose its decision upon us. I claim that right to myself. The church is made up of men, and I am a man with the rest of the members, and with equal right to judge. What I must judge is as to the truth of the statements made in the books, and the moral quality of their contents, whether worthy of God. On both of these points I have the right to judge and cannot help judging as soon as I begin to raise the question of inspiration.

And first, as to the Jewish Scriptures, what do they claim for themselves as to their inspiration? I take the thirty-nine books in order, not the order of the old Greek translation which our English translations follow, and even unfortunately the Revised Version, but that which has come down to us in the Hebrew text. By not following it the English reader misses the

fact that the Old Testament is divided into three collections, of which the Law was the first to be received as canonical, followed later by the Prophets, and later still by the Psalms, or Hagiographa.

Of these three the Law embraces what are called the Five Books of Moses. The book of Genesis makes no claim to have any authority different from any other book of history, and the same is true of the four succeeding books. We are not told who wrote them, and the anonymous author (or authors) makes no claim to special inspiration requiring belief. We are left to judge from their contents whether they are true, or how far they are true. We are told, to be sure, that a considerable part of the contents of Exodus, Leviticus, and Numbers was repeated by God to Moses on Mount Sinai, such as the Ten Commandments; and many a chapter begins with the words, "And the Lord spake unto Moses, saying." For the contents of these chapters the writer claims not mere inspiration but absolute revelation from God who is said to have spoken to Moses face to face. But by whom the writer was told this, or from whom he quoted these many passages, or whether the writer, living then or some centuries later, himself composed them, we are not told. We must judge of them simply from their contents, unless we are willing to rest on the authority of the church or of tradition;

but that would be renouncing reason. We would not do that in the case of any other books.

Included in the collection called "Prophets" are Joshua, Judges, the two Books of Samuel, and the two of Kings, followed by Isaiah, Jeremiah, Ezekiel, and the twelve Minor Prophets. Of these the purely historical books, Joshua, Judges, Samuel, and Kings are not attested as in any way differing from other books of the class, and I can see no reason why they should not be subjected to the usual canons of criticism.

Next come the three Major and the twelve Minor Prophets. Of the latter Jonah forms an exception, as it is not properly a prophecy but on the face of it a religious romance, and it bears no attestation, not even the name of its author. It is perfectly clear that the superscription to Isaiah in the first verse cannot cover the entire book, for the Isaiah there credited with the prophecies lived before the Captivity, while the author of the later chapters lived after the Captivity. A promise of return from the Captivity appears in 43 : 5–6 and 60 : 20. A date is set in 44 : 28 and 45 : 11, where Cyrus is spoken of as then reigning, and about to permit the rebuilding of Jerusalem. In 48 : 20–21 the Jews are bidden to escape from Babylon: "Go ye forth from Babylon; flee ye from the Chaldeans." They "were sold for nought," they "shall be redeemed without money." In 64 : 10 Jerusalem is said to be a

desolation and the temple burned with fire. This was not true in the days of Isaiah. The book is thus a compilation, part of it written presumably by Isaiah, and the more valuable portion anonymous. Large portions of the book, whether from Isaiah or the later writer, are put in the mouth of God as his declarations; whether truly and historically his words or so attributed to him dramatically, we are to judge. It is evident that here we have come into a new field of literary activity, that of the prophetic function, which needs consideration. Jeremiah is a book of oracles, "The word of the Lord came unto me," or, "The word of the Lord came unto Jeremiah," or "Thus saith the Lord." The conditions are the same in Ezekiel, with a richer development of visions.

When we come to the Minor Prophets, omitting Jonah, the conditions are still much the same. They are all declarations of the divine will, of hope or doom, interspersed with visions. The third chapter of Habakkuk is a late psalm, by way of exception, which has been attached to the oracles.

The third division of the Hebrew Scriptures, the last to be incorporated into the Jewish canon, is the Hagiographa, and consists of the Psalms, Proverbs, Job, Song of Songs, Ruth, Lamentations, Ecclesiastes, Esther, Daniel, Ezra, Nehemiah, and First and Second Chronicles. Of these

not one makes any claim for special inspiration except the latter half of Daniel. The first half is a collection of religious stories followed by a dream and visions granted to Daniel, a Jew of whom we have no historical knowledge beyond this book itself. As it is now generally admitted even by conservative scholars that the Book of Daniel was not written before the time of Antiochus Epiphanes, that is, three centuries after the times of the Daniel described in this book, and as it was a common convention at this period to put one's teachings into the mouth of some old authority, just as Plato and Cicero did in Greece and Rome, the ascription of the book to Daniel as a prophet falls away; and indeed the authors of the Jewish canon did not count him a prophet, nor did they put this book with those of the prophets, but into the latest collection. The earlier chapters appear to be, like Ruth and Esther, which also belong to the Hagiographa, edifying patriotic or religious stories rather than to be accepted as histories; while the last chapters of Daniel belong to a large class of eschatological books anticipating the coming reign of righteousness in which the writers of the class delighted, and of which Daniel is the best, and the only one to be received into the final Jewish canon.

Ezra, Nehemiah, and Chronicles are purely historical and make no special claim to authority beyond their internal evidence. The Book of

Psalms is made up of five separate books, probably of different dates of collection, and were used for worship in the Second Temple. Some are credited to their supposed authors or to collections, and others are anonymous. None of them make any more claim to superior inspiration than do the hymns of the Wesleys. Equally Proverbs is made up of various collections of wise and popular sayings, and, so far as their text goes, are to be judged by their intrinsic value. The next book is Job, a drama enclosed in a story. It is anonymous, religious, doubtfully of Hebrew origin, and makes no claim to be treated with any more reverence than its contents require. It is a noble work, the story in prose and the dialogue in poetry. The Song of Songs is composed of nuptial songs, is in no sense religious, and can be made religious only by such arbitrary interpretation as is to be seen in the titles of the chapters in King James's Version. Lamentations is a series of acrostic poems bewailing Jerusalem, the verses beginning with the successive letters of the alphabet, and it shows no reason why it should not be judged like other such poetry. Ecclesiastes is a late book the writer of which has put his philosophy into the mouth of Solomon, as the writer of Daniel put his apocalypses into the mouth of Daniel. No inspiration is claimed for it.

We thus find that the Old Testament, the Bible of the Jews, claims revelation from God for the

larger parts of Exodus, Leviticus, Numbers, Isaiah, Jeremiah, Ezekiel, and eleven Minor Prophets, while no claim is made for the writers of the other books which make up the three Jewish collections of writings selected by the rabbis of two centuries before and nearly a century after the birth of Christ from their general literature to be held as sacred. This requires me briefly to consider the validity of the claims of those writers who speak as the mouthpieces of God.

It is as nearly certain as any fact relating to so ancient a period can be, that the so-called Five Books of Moses were not written by Moses. It is nowhere claimed in these books that he wrote them and they tell us that after him there arose no prophet like him, and the story is told of his death. Of course, writing was well known at the age of Moses, but in the Egyptian or Babylonian, not in the Hebrew letters or language. No such fragment of that age has been found. Of course, we can imagine the books written in Egyptian or Babylonian and translated into Hebrew five hundred years later, but that is very improbable. The consensus of scholarship is that they were composed centuries after the death of Moses, and that the author made such use of materials as he could and by a perfectly legitimate literary convention of his day put into the mouth of Moses or of Balaam and into the mouth of the Lord

the teachings which he believed to represent the religious history of Israel and the worship of Jehovah. In a way both historical and dramatic he has done what Milton did when in a more venturesome way he enters the council-chamber of Jehovah, and in the third book of "Paradise Lost" reports the long dialogue between the Father and the Son. These Five Books of Moses are of immense value for history and religion, but I cannot see that they carry evidence of possessing the binding authority of inspiration.

The case with the prophetical books is quite different from that with the Pentateuch. Here we have the definite claim of inspiration from the writers themselves. Prophets were numerous in those days, old prophets, young prophets, schools of the prophets in training as under Elisha, wandering dervish prophets, as in the day of Saul; and there were rival prophets who prophesied against each other, each, for aught we can see, impressed with the truth of his message, declaring it had been given him from Jehovah. An instructive story we have in the twenty-seventh and twenty-eighth chapters of Jeremiah.

Jeremiah advocated political submission to Nebuchadnezzar, king of Babylon, who had made a raid on Jerusalem and carried away captives and holy vessels from the temple. His advice was politic, but did not seem patriotic. He claimed an oracle from the Lord, but there were

other prophets who also claimed to speak the word of the Lord, and who assured King Zedekiah of speedy deliverance and the return of the sacred vessels. To impress his wiser counsel Jeremiah put a wooden yoke about his neck, and went to the king and his princes and told them, from the Lord, that they must submit to the yoke of Nebuchadnezzar if they wished peace. But the prophet Hananiah entered the temple and proclaimed:

> Thus said Jehovah of Hosts, the God of Israel, I have broke the yoke of the king of Babylon. Within two years I will restore to this place all the vessels of the house of Jehovah which Nebuchadnezzar, king of Babylon, took from this place and carried to Babylon; and Jechoniah, son of Jehoiakim, king of Judah, and all the captivity of Judah that went to Babylon I will bring back to this place said Jehovah, for I will break the yoke of the king of Babylon.

Jeremiah listened and only said he wished it might be so, but that the event would prove which had spoken truth. Then Hananiah took the yoke off from Jeremiah's neck and said: "Thus saith Jehovah, So will I break the yoke of Nebuchadnezzar off the necks of all these nations within the space of two years." Jeremiah was silent for a day or two, and then returned with a message from Jehovah declaring that instead of a yoke of wood a yoke of iron should be

put on the necks of these nations, and that Hananiah should die within a year.

Apparently *prophet* was a general term, professionally allowed to any one who claimed it, and Jeremiah and Hananiah were equally known as prophets of Jehovah; and it would seem they equally believed they were speaking the will of God. The prophetic function was not peculiar to Palestine, for all the nations around had the same office under different names, given to diviners and interpreters of dreams and ministers of oracles. Even Cicero was an augur.

I cannot doubt that the select line of prophets received into the Jewish canon were the great moral and religious teachers of ancient Israel. They were infused with the sense of right and duty, and with a true patriotism which was held subordinate to their passionate loyalty to Israel's God. Their supreme religious fervor bore them much further than is expressed in the noble lines of John Quincy Adams:

> "And say not thou, My country right or wrong,
> Nor shed thy blood in an unhallowed cause . . .
> But when thy country tramples on the right
> Furl up her banner and avert thy sight";

for they never wearied to beseech the people to return to their God, and they denounced his sure judgments on refusal to obey their warnings.

I take it that a prophet was one who claimed

to announce the will of God to the king, the priests, and the people. He was, with scarce an exception, a man of special education, of broad knowledge of affairs, with the attitude of a statesman competent to instruct the court. More than this, he was an enthusiast, and he believed that what he said was the will of God. The prophets had the genius of poets, whether they wrote in prose or verse. It is to be observed that if they delivered their "burdens" and oracles orally, they also wrote them down at their leisure, in such a literary style and with such passion that their writings were copied and preserved. They were prophets not because they foretold things, but because they proclaimed things on the authority of God Almighty; and their prophecies were all of judgments on Israel if she did not repent, and of the visitations of God's wrath on the nations that had oppressed Israel.

I cannot doubt that these prophets believed that they were speaking the will of God; but not that they believed they were repeating God's words dictated to them. Yet they believed it in a higher sense than that in which some earnest and passionate preacher, some Savonarola or Luther, now proclaims and foretells; some Benjamin Franklin, who says: "We must all hang together, or we shall assuredly all hang separately"; or some Lincoln, who trembles when he remembers that God is just. They were

enthusiasts. They lived in an age when God seemed very near to man, when many a man saw visions and felt, or thought he felt, the very impulse of God in his soul. To them a strong conviction or a strong passion was the voice of God; and why may it not have been, and why may it not be now his voice when we feel the call of duty? They were human; they could err. They could speak only up to their conviction or their knowledge, some better inspired, some less so:

> "For every fiery prophet of old times,
> And all the sacred madness of the bard,
> When God made music through them, could but speak
> His music by the framework and the cord";

and as they felt it they have spoken truth.

This does not exclude literary conventions, of the prophets' own composition, given as illustrations, parables, visions, put into the mouth of God. There is a multitude of threats of vengeance on other nations that we cannot approve, although put into the mouth of Jehovah, as venomous as those in the imprecatory psalms, of which Isaac Watts says in his notes on his metrical versions: "I have omitted the dreadful imprecations on his enemies" (Psalm 69); and "Rejoicing in the destruction of our personal enemies is not so evangelical a practise; therefore I have given the eleventh verse of this psalm another turn" (Psalm 92); and Psalm 137 he passes

by entirely, with other passages as not "so well suited to the spirit of the Gospel." No one can believe that God inspired the sadly human imprecation: "Happy shall he be that taketh and dasheth thy little ones against the stones"; and there are many whole chapters of such curses in the prophets which cannot be read with edification because they are unchristian, and which I would never wish to translate for the instruction of Buddhists or Confucianists. I do not find the imprecations on Moab and Ammon in Jeremiah, or those on the surrounding nations in the two first chapters of Amos, helpful to devotion when read in either public or family worship; and I believe these "fiery prophets of old time," made their faulty music by the rude "framework and the cord," and not by the touch of the finger and the loving heart of the All-Father. They were inspired in a measure, but I cannot see that it was by any such compelling influence as saved them from error, whether historical, scientific, ethical, or religious. Always our best reason and best sense of right, that which we have learned from a higher teacher since the days of those Hebrew prophets, must judge them, but most reverently, most gratefully, as having been the highest teachers the world had known, through whom the knowledge of the one true God has come down to us; and yet they, without us, could not be made perfect. Too often they looked

on Jehovah as the special Hebrew God, even as Naomi bade her daughters-in-law go back to serve the god of Moab. While a late evangelical prophet could anticipate the time when all the world should worship Israel's God, yet not in the whole Jewish Scriptures is there to be found a single command to seek the conversion of foreign nations.

The present is not a treatise on inspiration. I am merely trying in the most succinct way to tell what I believe and why I believe it. And I do not find in the Old Testament itself any evidence of any such inspiration as forbids us to judge it, and to accept or decline its teachings on any subject. Most of it claims no such inspiration. We would never imagine it authoritatively inspired if we had not inherited the belief, first from the Jews of a century or two before Christ, and then from the writers of the New Testament. The three books of the Pentateuch which tell us what God said to Moses are books of history, and we must judge of them by the same canons as we judge of the speeches given us by Thucydides as spoken by other leaders. For myself, I believe that these books were written long after the time of Moses and that they are not literally historical. The prophetic books are splendid works of inspiration, but not of such inspiration as the previous Christian generations have held them to be. The writers be-

lieved themselves to be speaking the will of God, and they wrote and spoke with authority. They promised good for the good and threatened evil for the evil, and also for the enemies of their nation. They spoke the highest utterance of their times, not of all times. Their teachings were not perfect, but they came as near perfection as human faculties and human conscience and faith could then attain. Their writings deserve to have been the Bible of the Hebrew people, but there was something better to follow.

CHAPTER XIX

THE CHRISTIAN SCRIPTURES

WHEN the twenty-seven books of the Christian Scriptures were written there was no question among the Jews that the thirty-nine books of the Jewish Scriptures were fully, and, we may say, verbally, inspired. The writers of the Christian Scriptures were all Jews, and they accepted unquestioningly this belief. In Gal. 3 : 16 Paul bases an argument on the use of the singular, "seed," instead of the plural, "seeds," depending with rabbinic nicety on the verbal exactness of the text, which gives the promise to Abraham. The writers of the New Testament based their claims for the new faith on their exegesis of the commonly accepted Hebrew Scriptures which bore full divine authority, and they tried thus to show that Jesus was the promised Messiah. But no such inspiration do they claim for their own writings, simply the authority of truth. That satisfied the Apostolic Church.

The three Synoptic Gospels, Matthew, Mark, and Luke, are books of biography. They are the remains of a number of such books recording the

sayings and works of Jesus, and they were preserved no doubt because they were the most complete and valuable of all that were current. Luke tells us in the first verse of his Gospel that many such booklets were current in the churches, but all of them have perished except these three Gospels. One of them, indeed more than one, Luke certainly used, for much of his material is common to Matthew and Mark. Matthew's Gospel is also composite, and Mark's seems to be the most nearly original of the three. The writers make no claims to have possessed in the writing of them anything more than human wisdom. For all they have to say we have the right to use our judgment in accepting their statements as true. But that their object is to give substantially a true story of the life and teachings and death of Jesus is plainly evident.

This is not so clear as to the Gospel given to us under the name of John. No author's name is assigned to the Fourth Gospel, any more than to those of Matthew and Mark, but an old tradition assigns it to the Apostle John; and the last chapter, which is an appendix apparently by another writer, assigns it to him. It may be that John wrote it in his old age, or, quite as likely, one of John's younger disciples composed it, incorporating facts and reminiscences which he had received from his master.

The latter conjecture seems more probable to

me, for it seems evident that it was the intention of the writer to give, as in the words of Jesus, the substance of the Christian teaching, and not to gather up from tradition or memory our Lord's actual and exact addresses and prayers. The book is dramatic rather than biographic. Thus in John 7 : 4–26 is given the prolonged conversation of Jesus with the woman of Samaria, when no one of the disciples was present. Similarly we have in the third chapter the conversation of Jesus with Nicodemus at a secret meeting, the writer's purpose being in both cases to present Jesus as the Christ. It was his plan to put in an historical setting the author's idea of the essential principles of the Christian faith as they had been developed in the church at the time of his writing. Whether John wrote it in his old age, or John the Presbyter, as some have thought, or some other writer, is to me of no importance, not worth discussing here, and may be left to the schools for study or conjecture. It is enough to say that the Fourth Gospel bears to the Synoptic Gospels very much the same relation as do the Dialogues of Plato, in which the teaching is put into the mouth of Socrates, to the actual sayings of Socrates as recorded by Xenophon in his "Memorabilia."

It must not be thought that such a composition with language put into the mouth of an honored leader would be regarded in those days

as ethically wrong or was meant to deceive. We know that sixty books were written by the disciples of Pythagoras and ascribed to him with the thought of honoring him; and a multitude of Jewish books, like the Book of Daniel and the Book of Enoch, and a larger number of Christian Gospels and other writings ascribed to the Apostles have come down to us, and the Christian fathers were honored in the same way. When a Greek or Latin historian puts into the mouth of a general a rousing address to his soldiers before going into battle, it must not be supposed that the historian had before him a parchment copy of the speech, or, indeed, that any speech was made. It is simply the historian's way of indicating what he believed to be the purpose of the general in joining battle. Yet a subsequent writer, or an uncritical reader, may make the mistake of supposing that the author's literary device really represented the genuine words of the hero of the history. Such has been the case with the Fourth Gospel. After its great value made it read in the churches and received into the canon, it came to be believed—and the tradition has come down to us—that the very words of Jesus in his discourses and their historical setting were truly and miraculously reported and have been preserved to us. For any such conclusion there is no evidence and no claim in the Gospel itself.

It is incredible to me that these discourses at-

tributed to Jesus were really uttered by him. They are quite unlike the simple, concrete sayings of Jesus given in the three other Gospels, and which were written down long before the composition of the Fourth Gospel. It is not simply the historical discrepancies which affect my conclusion, but the substance of the discourses, which represent a later stage in the development of Christianity. The tone is utterly different. The three Gospels tell a plain story. Jesus does miracles of healing, and gives religious teaching about the Father, and righteousness and mercy, but publicly makes no claims to be the Messiah. That comes but seldom, and then privately with his disciples, and he bids them tell no man. Even the marvellous judgment scene of the last day when he shall sit on the throne of his glory, and that other assurance that his disciples shall sit on twelve thrones, are in private. But it is different in John's Gospel. The writer says in his conclusion, before the Appendix, that he wrote it "that ye may believe that Jesus is the Christ, the Son of God, and that believing ye may have life in his name." Accordingly every incident and address is chosen and told so as to emphasize publicly as well as privately his claim to the Messiahship. He tells Nicodemus that he is "the only begotten Son of God." He tells the woman of Samaria that he is the Christ, and she tells the Samaritans,

many of whom believe, after he had been with them two days, that he was "indeed the Saviour of the world." After the cure on the Sabbath at the Pool of Bethesda he tells the Jews that he is, "the Son of God" and that the dead shall hear his voice and come out of the tombs unto the resurrection of judgment. Again in the synagogue at Capernaum he told the people that his flesh was for the life of the world, and that he would at the last day raise up those that believed in him. And so it goes through the whole Gospel: Jesus is all the time talking about himself and emphasizing his claims, except in the unauthentic account of the woman taken in adultery, which sounds like one of the gracious stories lost out of the Gospel of Luke. There are no characteristic parables, only long addresses.

The explanation of the difference in the description of Jesus given in the Synoptic Gospels and that of John is to be found in the fact that it represents a later stage in the development of the church, and that it was written to emphasize that faith in Jesus as Christ and Saviour which he taught privately in the chamber and not on the housetop. When it was written the church had felt the transforming influence of Paul, of which we find no trace in the three Gospels, but of which the Fourth Gospel is full. I think of Paul as brought, as suddenly as by a miracle, to the conviction that Jesus was the promised Mes-

siah. But that contradicted all the Biblical teaching he had received, and the permanent authority, he saw, though the other Apostles did not immediately see it, of the Mosaic Law. So he searched the Scriptures to learn where his error had lain. He clearly saw that the acceptance of Jesus as Messiah and King involved a purely spiritual religion, with the passing away of the Mosaic ritual and ordinances, and the victory of Jesus over Moses. How could this be? He found the key to the problem in two passages, one in Genesis, that "Abraham *believed* God and it was counted to him for *righteousness*," that is, for *justification;* the other in Habakkuk, where he found the same two words, that "the *just* shall live by his *faith*," that is, *belief*. The two passages agree, as two witnesses, that one is *justified* by his *belief* in God, and if so not by any formal rites. The first passage shows that a good man, yet uncircumcised, living centuries before the Mosaic Law, could be saved by his faith in God; and the second showed that faith was equally efficacious after the promulgation of that law. So he found Bible authority for discarding the saving value of the law of ritual service. Thus faith was to him the condition of salvation; and by faith he meant not intellectual belief in a system of doctrine, but the opposite of what he called the works of the law, of sacrifices, fastings, circumcision, and other "bodily exercises" which "profit nothing." That

is, faith was heart religion, was the acceptance of God as the loving Father, obedience to him and fellowship with Jesus Christ who had died and risen again as the Messiah.

Thus faith, with Paul, meant faith in Jesus as the Christ. But this is what we do not find in the Synoptic Gospels as the meaning of *faith* and *believe* (the same words in Greek). In these Gospels those who would be healed must "believe" that he can cure them; if the disciples "believe" they can remove mountains they can do it; and Jesus bids the multitude "believe" in his good news. But in John's Gospel the word *believe* appears more than twice as many times as in the three other Gospels together; and now it is to believe on Jesus, an expression belonging to Paul and not found in the Synoptics.

Thus the purpose given for writing the Fourth Gospel, that its readers might believe that Jesus is the Christ, is borne out in its composition. It is the latest of the Gospels to be received into the canon, while a number of others were written, had some currency, but were finally rejected. It is rich in spiritual inspiration, a precious treasure, but it makes no claims for itself to be received as a book inspired in any peculiar way. The speeches put into the mouth of our Lord give the spirit of his Gospel, but cannot be real reports.

The Book of Acts is a book of church history, but it makes no claim to be judged in any way

differently from any other book of history; and, on the face of it, it is to be valued by what it is found to be worth, and that value is immense.

Paul in his Epistles speaks with a real authority, but it is the authority of an Apostle rather than of one guided in all he may write by the Holy Spirit of God. In most of his Epistles he describes himself as an Apostle, yet not commissioned like the other Apostles who had been disciples of the Lord, for he had never seen Jesus in the flesh, but only in a vision; yet his apostleship, he claimed, was as direct as theirs and had been more fruitful. So far as we can see, the very permanence of the Christian Church, as well as the definition of its faith, depended on Paul. But for his clear exposition of its meaning and its universality it might have perished as a mere Jewish sect, like that of the Ebionites. Paul had the clear vision to see what was involved in the spirituality of Christ's teachings, that in Christ the Gentile is as good as the Jew, and that not one ritual observance, not even the Sabbath, was retained as of obligation. Jesus, as his teachings appear in the Synoptic Gospels, never broke the Mosaic Law. He observed its commands. He said that he who should break one of them would be least in the kingdom of heaven; that tithes of mint, anise, and cummin should be paid. He kept the Sabbath, but he condemned, out of the Law, the stringency which

forbade to do good on the Sabbath, and the hypocrisy which kept the letter but not the spirit, and added burdensome traditions and interpretations; and he strengthened the Law, not by adding to its letter but by emphasizing its spirit. He preached only to his own people, the lost sheep of Israel; but it is the Gospel of John which, following Paul, tells us that neither in the Samaritan mountain nor in Jerusalem does God choose to be worshipped any more than in any humble heart.

Paul was the chief of Apostles, and yet he did not claim to speak with any such authority as he allowed to the Old Testament. In writing to the Romans he recognizes that they are "filled with all knowledge," and yet he ventures to admonish them, not to command them, simply because of the grace given unto him "to be a minister of Christ Jesus unto the Gentiles." He "beseeches," not commands, the quarrelsome Corinthians to put aside their contentions; and again, "not that we have lordship over your faith." He gives his rebukes positively yet courteously, and on some questions on marriage he gives his opinions with reserve, or thinks he has the spirit of God, while on other matters he speaks positively, as their teacher and Apostle. He rebukes the Galatians sharply for their Judaizing but the most he says of his own authority is that he received his Gospel from God. More positive "command" does

Paul give to the Thessalonians that they withdraw from any that walk disorderly. He tells Timothy that the sacred writings which he had learned from his infancy, meaning the Jewish Scriptures, are "inspired of God," but has nothing to say of any Christian writings, his own or any other. Indeed, nowhere does he claim the same authority which he allows to the Old Testament.

The Epistle to the Hebrews is from an unknown author, not from Paul. It is most clear in its accepted doctrine of the inspiration of the Old Testament, saying in the first verse that God had "spoken unto the fathers in the prophets in divers portions and in divers manners"; and the whole argument of the superiority of the Christian dispensation to the Jewish people is based on the authority of the Old Testament, which it quotes in the words: "The Holy Ghost also beareth witness to us"; but the writer depends on such authority and not on personal inspiration for his own claim to acceptance.

No more do the shorter Epistles of James, Peter, John, and Jude make any claim to divine inspiration. They simply exhort as any teacher might. But the case is somewhat different with the Revelation, which is assigned to John, apparently the Apostle. It is in the form of visions; and the writer puts the most of it into the mouth of Jesus Christ or of angels; and by way of exception to all the other books of the Bible the

writer, at the end of the book, puts into the mouth of the Lord Jesus a curse upon any one who should add to or take from its contents. This must be understood as a most positive claim for the fullest inspiration and sanctity.

And yet the Revelation, as it comes last in the New Testament, so was the last to be accepted as canonical. It was recognized in the second century by Papias and Justin Martyr, but was rejected in the same century by Marcion, and later was not included in the old Syriac Version and was generally rejected in the Eastern Church, and by Dionysius of Alexandria, Eusebius, and Chrysostom. But the Western Church held to it, and opposition to it gradually died out, although Luther put it, with Hebrews and James, among books of doubtful canonicity. It is hardly probable that it was written by the Apostle John, quite as likely by John the Presbyter, and it belongs to the list of a number of books on the last things, a subject which much fascinated imaginative spirits. This is far the best of the whole class, but I can see no internal or external reason for believing that it bears divine authority.

If, then, not one of the writers of the New Testament, except the writer of the Revelation, the most doubtful of all, claims for his work any such inspired authority as he allowed to the whole Old Testament; and if the same is true for the writers of the Old Testament, except as three books of

the Pentateuch and the prophetical works claim to include certain revelations from God, how does it happen that the doctrine of inspiration for each of the two Testaments as a whole has grown up? It is clear that no special act of inspiration first gave its accrediting to either Testament as a whole, but that the separate books, one after another, came to be held as sacred and one was added to another until the time came when the collections were held to be complete.

I take it that, for the Hebrew Scriptures, as the literary period advanced after the Captivity and the return, and as the development of the synagogue advanced in its provision of local worship, rolls were gathered, first of the Pentateuch, and later of the prophetic books, and finally of the Psalms and kindred collections, to be read at Sabbath services. The synagogue would provide for the community its library and school; and other books of value beside those purely religious might be read, such as were historical, or romances like Esther, Ruth, and Daniel, which were among the latest to be accepted.

Some, like Ecclesiasticus and Judith, might have some currency, but not so as to be thought quite as valuable perhaps if not written in Hebrew, or if of later composition. When read in worship and depended upon for religious and patriotic history, they would gradually acquire sanctity and even the original romance or the

old love-songs would be accepted as history or figure. In our own day, we have seen the Book of Mormon and Mrs. Eddy's teachings on Christian Science read with the Bible in worship and added by some to the canon. The process was gradual but sure; and while the three divisions of the Hebrew Scriptures were not held to be of equal sanctity, yet all were allowed divine inspiration, and this result had been reached, as the New Testament books prove, before the time of Christ. Jesus and his disciples as well as the Jews inherited and accepted the doctrine without question.

The process by which so many of the early Christian Gospels, Epistles, and other writings were chosen to form a sacred canon was much the same. The Christian synagogue became the church, and like the synagogue the church had its chest of valued books. There the children were taught and all the people worshipped and listened to the written words of the Apostles and other distinguished teachers. Thus Polycarp made a collection of the letters of Ignatius for the church at Philippi. Each church would make as good a collection as it could to be added to the Old Testament Scriptures. These would be read on the Lord's Day, and by the time a generation or two had elapsed, the new Christian books of the Apostles, and others near them, would come to be regarded as quite as sacred as the Jewish

Scriptures. It would come gradually, and different churches would have varying collections. Thus the West accepted the Revelation while the East rejected it, and in old manuscripts of the New Testament are included the Epistles of Clement, the Epistle of Barnabas, and the Shepherd of Hermas, while to these may be added the Gospel According to the Hebrews and that According to Peter, and the two Apocalypses of Peter and Paul. Many such books dropped out, leaving by general consent those now printed in our Bibles.

The result was that the best survived, and some perished. What was at first accepted as good and precious grew into sanctity, and to it was ascribed the same divine inspiration as to the Old Testament. Time ripens distinction. The church in Corinth quarrelled as to the preference to be given Paul or Peter or Apollos. Washington and Lincoln were not canonized in their own day. There was no cult of Shakespeare and Milton while they lived. A generation or two had to pass before Milton could pen the epitaph on Shakespeare's "honored bones," and a similar period had to elapse before Dryden's famous quatrain could rank Milton as the fourth and greatest of the world's epic poets.

So it was with the New Testament books. Clement, about 90 A. D., quotes the Old Testament abundantly, and with such formulas as

"The Scriptures bear witness," "Thus saith the Holy Word"; but the New Testament books are never quoted by him with any such reverence, although he does speak of one of Paul's rebukes to the Corinthians as guided by the Holy Spirit. In the second century the condition has changed. Polycarp quotes the New Testament as authority more than the Old, and a little later Justin Martyr has given it full inspiration. In our day the New is properly accepted as superior to any part of the Old.

CHAPTER XX

THE INSPIRATION OF THE SCRIPTURES

IN two previous chapters I have spoken of the Hebrew and the Christian Scriptures, and have tried to show what testimony they give as to the claim that the writers had special inspiration from God.

Believing, as I find evidence to believe, that God's hand can be seen in the creation and evolution of nature, I have no difficulty in believing that God can act and has acted, under his own laws, in the course of human history. I can see no reason why he should not guide good men, of whatever nation, as teachers along the ways of goodness; but, as in his guidance of the course of nature, I would expect his action to follow a course of evolution, along which men should gradually learn more of him and more of goodness and wisdom. I see no reason why an Elijah or Isaiah or John or Paul should not have had much of such guidance and inspiration, or why great and good men in later or earlier days might not have been thus favored, whether Zoroaster or Socrates.

But I should not expect this light from heaven

to be blinding. It would not give more than could be received. The earliest history of mankind makes them ignorant savages, and by a course of evolution they had to come from a condition somewhat higher than the beasts to one of civilization and intelligence. God might lead them up gently, patiently, by many hands which his had grasped. God's prophets would be imperfect men, and much imperfection and much error would be mixed with some new truth discovered and taught.

I can see in the Hebrew and Christian Scriptures no evidence of what is usually meant by inspiration; in much of them no evidence of more than any historian or other writer might attain. It is not in the history or the science of the Bible, any more than in its rhetoric, that we are to look for anything unusual; they are no better than what we find the literature of other ancient peoples to be; it is in the amazing appearance of the teaching of one supreme God of absolute justice and holiness. At first, as under a process of evolution was to be expected, he was the one God of the Jews, while other nations had other gods, but later, in the time of the Captivity, the Hebrew prophets rose to the conception that Jehovah was the only God, and the gods of the nations were but silver or gold or wood. No other nation reached this height of inspiration. Greece invented civilization, and from Greece alone has it spread to all

the world since; but it was only the Hebrew people that discovered, taught by their prophets, the worship of one only true God, Maker of heaven and earth, and beside him there is no God. By what miracle of insight or of divine revelation did they learn to worship this sole God, that insignificant little tribe of Egyptian slaves, fated to hold the highway of two hostile nations, the mightiest on earth, both vulgarly polytheistic, one worshipping "Isis and Orus and the dog Anubis," and the other, on the Euphrates, annexing gods from every conquered nation and in terror of heavenly and earthly monsters and dragons innumerable; and right about them the many-named Baalim and Ashtaroth of the lesser Amorites and Syrians and Phœnicians. Why did this insignificant football of the nations, tributary or captive, find the one God whom the learned priests of Thebes and Memphis and Babylon and Nineveh, searching for a *Deus Exsuperantissimus* in their genealogies and hierarchies of deities, could not find—no, not even when the Heretic King of Egypt chiselled out the names of Egypt's gods that he might replace them for a decade or two with the mighty, many-handed god of the solar disk? Here is history's great riddle, unsolved unless it be by special divine Providence, which made little Palestine the world's teacher in religion, as little Greece is its one master in culture and civilization. Was there not here revela-

tion to the soul rather than inspiration to the pen?

It is impossible to prove this or any higher degree of special inspiration, for it would transgress no natural law of the mind, and it would be a matter of faith resting not so much on reason as on its reasonableness. It is reasonable that God may have guided, as a part of his providence, certain men anywhere and at any time to be teachers of their people. Miracles may be supposed to support inspiration, but the miracles are a part of the books for which inspiration is sought, and their genuineness is a part of the question, and is more in doubt than the inspiration itself. Really, the one main argument for the inspiration of the Hebrew Scriptures is that our Lord is, I doubt not, truthfully, reported to have treated them as such, referring to them as prophetic evidence of his Messiahship. To be sure, we may reply that the evangelists wrote two or three decades after his death, and gathered their reports of his words from memory and from stories current in the church and hardly verbally accurate, and very likely incorporated their own ideas of the fulfilment of prophecy; but, as the record stands, Jesus himself accepted the current Jewish notion of the inspired infallibility of the Old Testament, and it is almost certain that he was taught in the synagogue school to believe as every one believed. Whatever view is taken of

the divinity in Jesus, this is admitted by all: that he grew in knowledge from his childhood, that he did not know when he should return to earth, and that, if correctly reported, he was mistaken when he said that his second coming would take place during the life of that generation. Jesus was not alone in his acceptance of the prevalent doctrine of Scripture. But that doctrine had grown up gradually, and had no definite basis. Because the Jews of two or three hundred years before Christ had developed this doctrine, the Christian Church in the course of a hundred years or more added their own Scriptures to the inspired canon.

What is valuable in the Bible, Old Testament and New, is its truth rather than its inspiration, its religious truth and its historical truth. Christianity depends on the truth in the Scriptures, not on their inerrancy; otherwise, if error were proved, that would overthrow Christianity.

We do not need to search with a microscope to find errors of fact in the Bible. They are patent. The world of earth and stars was not made in six days. The meaning of the story in the very first chapter is not to be twisted and wrenched by hunting in the dictionary for a definition of "day" that will stretch it to millions of years, for the question of meaning is purely literary, not arbitrarily lexical, as if "The evening and the morning were the first day"

could cover a whole geologic period. The truth of the chapter is not in the details of the panorama but in the grandeur and sublimity of the detailed conception that God was the author of the firmament above and the earth and the waters beneath. That truth we can believe and accept, and disbelieve all the rest.

Nor do we have to believe that all men and beasts perished from the earth, except those in Noah's ark. With our knowledge the story is absurd; and we know that it is an older Babylonian legend cleansed of its polytheism to fit it to the acceptance of those who worshipped one only God. Just as absurd is the myth of the confusion of tongues at the Tower of Babel. We can smile at the credulity which lengthened out the lives of the patriarchs, Terah 205 years, his son Abraham 175 years, Isaac 180 years, Jacob 147 years, Joseph 110 years, and Moses 120 years, at a time when we know from contemporary Egyptian and Babylonian inscriptions that the ordinary period of life was not exceeded.

It is a comparatively simple thing to separate the legendary from the historical period in the annals of Israel, and to see in both the development of the pure faith of monotheism. History depends upon writing; and it is not likely that the Hebrews had any writing in their own language before the time of David. Of course, the Egyptians and Babylonians had their compli-

cated pictographic or syllabic systems of writing long before, and the Babylonian system and language were used in Palestine, we know, till near the time of Moses for international correspondence, but it is exceedingly improbable that the books of the Pentateuch were written first in Babylonian or Egyptian and translated centuries after into Hebrew. It is much more likely that the so-called Five Books of Moses were composed some considerable time after the civilization that grew up with David and Solomon; and this accounts for not a little of legend and miracle in them. The freedom of composition is illustrated by the fact that in so solemn a document as the Ten Commandments the reason given for keeping the Sabbath in Deuteronomy is entirely different from that given in Exodus.

But misapprehensions as to the distinction between history and legend are far less serious than moral or religious imperfections, and such there certainly are, and not a few of them, in the Old Testament, and perhaps in the New. We must expect them if the understanding of duty and the knowledge of God come by slow development of ages; the new seed will not at once crowd out the old weeds. Indeed the whole sacrificial system common to the nations about them, at first polytheistic and later purified by monotheism, was based on a false conception of God as a being who has to be placated and bought off by the

most precious gifts, even to the first-born, and the prophets had to protest against dependence upon it; and Christianity had to reject it all and save it only as a type of Christ.

But why should we be surprised to find that writers of the Jewish Scriptures fell behind our ethical standards, when we have not ourselves ceased from going to war, and honor soldiers as a superior caste? I cannot read portions of the Old Testament without wishing that their translation into new missionary languages might be long delayed, and that children might learn the New Testament before the Old. We should not make too much of the Old Testament; it is far from perfect. It is not to edification to read of the seventy men of Bethshemesh whom God slew for looking into the ark when it was sent back by the Philistines; or of Uzzah, who died later because God was angry with him when he tried to steady the ark when it shook as David was bringing it to Jerusalem; or of Elijah the prophet slaying the four hundred and fifty priests of Baal; or of Elisha cursing in the name of the Lord forty-two little children who had rudely called him a baldhead and were killed by bears. Among the prophets there are not a few whole chapters, as in Ezekiel and Amos, not fit to be read in public worship because of the vengeance which they demand against the enemies of Israel. There is in them none of the spirit of Jesus. And even in

the New Testament we are sometimes disturbed because what Jesus said or did seems wrong, and we cannot help asking if the tale be true: as when our Lord is said to have cursed the barren fig-tree, which belonged to somebody, and it withered away; or when he was asked to leave a city because he had destroyed a herd of swine; or when he forbade his disciples to teach, as they went two and two, outside of Jewry, because he was sent only to the lost sheep of Israel. Or how can we at this late day be expected to approve, even if we can credit, the sudden execution, by the malediction of Peter, of Ananias and Sapphira for "lying to the Holy Ghost"?

If a stringent theory of inspiration, whether we call it inerrant or plenary, fails when judged by either history or morals, it equally fails when we test the New Testament by its interpretation of the Old. No scholar would now dare to use the Old Testament in argument as the writers of the New Testament use it, getting in a rabbinic way meanings out of it that were not in the mind of the old prophet. The first chapter of Matthew quotes a prophecy, "A virgin shall conceive," etc., as fulfilled in the birth of Christ; but it has no plausible relation to Jesus; for Isaiah goes on to tell Ahaz that before her child is old enough to know good from evil his two enemies, the kings of Syria and Samaria, would die. In the next chapter Matthew quotes the words of Hosea,

"Out of Egypt have I called my son," as fulfilled in the return of the infant Jesus from Egypt, when it is perfectly evident that the quoted passage is not prophetical but looks backward: "When Israel was a child then I loved him, and I called my son out of Egypt," and Hosea goes on to say that after coming out of Egypt Israel turned back to idols. The book of Hebrews offers what we should call illegitimate expositions of Old Testament passages which suffer a verbal dislocation, as when in the first chapter the passage, "I will be unto him a Father and he shall be unto me a Son," which was addressed definitely to David, is made prophetic of Christ. So through two chapters the author proves that Jesus is greater than Abraham on the basis of a verse which says: "Thou art a priest forever after the order of Melchizedek," which has no bearing on his argument.

But, as I have said already, the value of the Bible, as of any other book, depends on the truth, especially the new truth that it brings us. It is to be expected that it will retain errors belonging to its times, for without error it would not be comprehended or received by the people to whom it was addressed. And this is true even though it contain ethical errors and imperfect views of God. Every failure to see moral obligation clearly involves a relatively false view of God; for God is our highest conception of what

is right. Even yet are we gaining truer views of right and wrong. We understand duty better than it was understood in Paul's day. Paul knew that in Christ there was neither bond nor free, but he gives no sign of knowing that slavery was wrong. For aught he could see woman was a subject sex; we free both women and slaves. Jesus had taught that God was a loving and forgiving Father; Paul could not get beyond the idea of expiation and appeasement of God by sacrifices, and from him and the author of Hebrews the doctrine came which Milton puts into the mouth of God speaking to his Son in the heavenly conclave, that Adam, because of his sin,

> "To expiate his treason hath naught left,
> But, to destruction sacred and devote,
> He with his whole posterity must die:—
> Die he or Justice must; unless for him
> Some other, able, and as willing, pay
> The rigid satisfaction, death for death."

That is Old Testament teaching, the teaching of justice, righteousness, not the full Christian doctrine of the parable of the Prodigal Son, of full, free, fatherly love. And so it is that too many of us have regarded the Second Person of the Trinity as the expression of the infinite love of God, and the First Person of the Trinity as the expression of God's stern punitive justice.

But I will be asked: "If you deny an infallible

Bible, what have you left? You are—are you not?—an infidel, an unbeliever, left like other pagans to the bare light of nature." We are used to hearing that reproach from Uzzahs who rush to steady the ark. It is better—it is safer—to seek after the cold truth than it is to try to bolster up faith. But Christianity surely does not depend on the possession of an infallible Scripture. It depends on the spiritual truth in the New Testament, on the true conception of God as Father, on love for others as the regnant principle of life as against self-culture or any other coarser form of selfishness; on the kingdom of God to be created on earth by that love expanding over all humanity; and, historically, it depends on the person of Jesus, the Christ, whose teachings, life, and death initiated the highest of all religions. But it is his teachings which we must accept, and not any matters of history about him, from his birth to his resurrection and ascension. They only are of cardinal and essential importance; for love affects character, while history, correct or incorrect, bears only on intelligence.

What, then, is left when I venture to question and doubt, or even to deny, on the basis of my own reason, statements which I find in the Bible, and to disapprove matters of morals, theology, or religion recognized not unfavorably in the two Testaments? This is left: the search for and dis-

covery of God in the myths of the childhood of the race, the grandest discovery to which the mind of man, wandering among portents and omens and dreams, has ever been guided, the story of the marvellous discovery, scarce credible where made, that God is one and that he created and rules the world. The great fact was learned by the teachers of an insignificant tribe, but its implications had to be slowly found; and I see in the successive books of the Old Testament a clearer and ever clearer sense of God's holiness, and of the obligations of justice and right as resting on men. It is worth while, greatly worth while, to possess this unique collection of writings of prophets and psalmists and historians, utterly unique in the history of ancient literature, with whom God and righteousness were supreme, and from whose Hebrew faith alone we have inherited our knowledge of God. When I try to conjecture how this sublime vision and this wonderful succession of seers and sages was able to conceive and teach what was hidden from more gifted and cultured nations, I do not find it easy to believe that it all came through some mysterious special genius for religion, and I find it easier to see the proof of the guidance of that indwelling Spirit of God which we call inspiration, not knowing how or where it may work.

And much more is left. I see in the New Testament the Mosaic religion suddenly rejuvenating

itself and developing into Christianity. I see Jesus an utterly new sort of prophet, announcing and promising the kingdom of heaven to spread over the earth. That was new; it is not in the Old Testament. I find a new doctrine of God and a new doctrine of man—of God as Father, which is, being interpreted, God is love; of all men as brethren, and the duty to treat them with love, all of them, Jew and Gentile, and to sacrifice for them, to die for them if needful, to teach them the good news of the love of God and of the kingdom of heaven which is the kingdom of love. I find God brought very near to us in this world, and the promise of the world to come.

All this constitutes a new religion, a religion the world had never known, a religion of loving worship toward God, and a religion of all possible social service toward men. The first Christians were noted because they loved one another, and buried the unburied bodies of the pagan poor about them. I may not be sure that the very fulness of God dwelt in the man Jesus; but God's wisdom, which was with God from the beginning, his Logos, dwelt mightily in Jesus, and allowed him to give to man a better knowledge of God by far than the world had ever learned, even from the best of Hebrew prophets. And I and any one can see that Paul and the other Apostles caught much of his spirit, and spread it abroad after his death; and if I fail to see that they were wholly

right when with one hand they discarded the Jewish ordinances ready to perish, and with the other made them the authority for a new sacrificial system of pardon for which love was enough, may I not see that the spell of Mosaism could not at once be fully thrown off, and that there was inspiration enough left, so that the cleansing fire of its love might purge the remaining dross of the law of justice appeased by sacrifice; and we can approach directly to God, with the God in Jesus Christ as our Mediator, or even with no mediator at all, saint, or Virgin Mother, or Jesus Messiah?

So I do not look on any doctrine of inspiration as essential or even important; but the truth which came so suddenly to the world in Jesus Christ, that is, the Christian religion, is of infinite value, and is such, apart from any theology about any way, additional to its evident truth, by which men have believed it to be accredited.

CHAPTER XXI

JESUS THE CHRIST

THE old question, "Who do men say that the Son of Man is?" now is asked as earnestly as in the days when he went about teaching and healing; and however the answers may vary, so deep and wide has been his influence that there are few who cannot accept Peter's confession, "Thou art the Christ, the Son of the living God." Who need measure his words when acknowledging the mightiest power that has ever moved the world?

Peter did not know what the words meant to which he was giving his assent. What was it to be the Christ, the Messiah? He thought it was to be a lordly ruler over freed Israel, or even over the subject Roman Empire and the whole earth; he had to learn that it meant for him and his Master crucifixion and "content with death and shame," for his kingdom was not of this world. But through the centuries that have passed, and to the end of time, no badge of honor fails to yield place to the cross of the Christ. Jesus is the world's Messiah.

Yet all we know of the life and death and resurrection of Christ is what was written in four short

biographies, of which three repeat much, and the fourth is not so much a history as an exposition. The three are made up of various jottings and memoranda written first from memory of incidents and discourses, such as were repeated in meetings of the early Christians, collected in no such critical way as a modern scholar would write a biography, but compiled with all honesty and with all reverence as well as the authors could do it, a generation or more after the death of our Lord. Luke says he had many written sources, as doubtless had Matthew, and perhaps Mark, who must have heard Peter tell what his Master said and did. Of these three Gospels Mark is the oldest, and comes nearest to the primitive tradition; while in a half-century, more or less, before the Gospels of Matthew and Luke were compiled there had been time for accretions and embellishments to have grown up on the simple but wonderful story of the life of Jesus. Paul does not seem to have known anything of any of our present four Gospels. Pious invention added other stories to the life of Christ, some of which we have in Apocryphal Gospels never accepted in the canon, but which illustrate the growth of myths which always form an accretion about the life of a hero. So we have the story of Washington and the cherry-tree, and in late days a cycle of miracles has sprung up around the founder of the Babist sect.

Of the teachings of Jesus as variously reported in the Synoptic Gospels nothing need be said beyond what I have already said, that the world has accepted them as the new revelation of God as love, and of love to all humanity as the highest expression of duty, as against all the ethical systems that make self-culture the chief duty. The Emperor Julian, who knew Christianity and rejected it, said in his Oration to the Cynics: "The end and aim of the Cynic philosophy and of all other philosophies is happiness, along the line of one's nature." Such, he tells us, is the definition of happiness for the gods, that they fulfil their own nature, and make the most of themselves. The Christian ethics requires us to value others as much as ourselves, and so to sacrifice ourselves for others, thus making justice to our fellow men insufficient and making overflowing love supreme. The teaching of Jesus is again new and supreme in religion in that it places no value on service of the hand or mouth, but only on the worship of the heart. Religion is solely spiritual. This is the new ethics and the new religion which Jesus brought in his teaching, and beyond which we have not gone, and, so far as we can see, never can go. All this is to be accepted beyond doubt. We can judge of it. We are capable of judging, for the evidence is in ourselves; we respond to it.

But as we read the Gospels the case cannot be

the same as to the biography and history they have compiled. They have to be tested by the best critical judgment we have, and no other subject in all literary history has attracted so many scholars. It is a proper subject whatever our view as to inspiration, for our view of inspiration must depend on what we first conclude as to the veracity of the reports of the acts of our Lord, and especially as to the miracles related about him. The evidence as to their truth we are obliged to sift, for it is not such as we would accept now as related to some modern teacher or claimant. It is the reports coming we do not know from whom and gathered by quite uncritical compilers who differ on many minor and some major matters. I have heard it often said that Jesus was so wonderful a teacher that his divine teaching accredits his miracles. But that is a topsyturvy argument. The purpose of the miracle is to accredit the teacher; not of the teacher to accredit the miracle.

I am not conscious of any prejudgment against miracles. I have been taught to believe in them and have accepted them, certainly some of them, but I admit that my faith in them is less than it was; partly because the evidence for those of the Old Testament is so weak, and the proof for those of the New Testament by no means such as we might desire for evidential purposes; and partly because they have become of much less

evidential value since burden of proof is now required to support the miracles and not the teaching. Indeed, the miracles have come to be a weakness rather than a strength. Of one miracle this is not true, the miracle of the resurrection of our Lord. If that can be depended upon it is of very great help in supporting the teaching of our Lord as to the future state.

And yet I find in myself a growing hesitation about accepting second-hand witnesses to the miracles of the New Testament. I believe no man living has ever seen a genuine miracle. I do not believe that any one has seen a miracle since the days of the Apostles. A multitude are reported every year: miracles are cheap; but yet we do not believe in them. We believe the laws of nature are not transcended. Are the stories true told of miracles in Christ's day? Not one of the writers of the New Testament claims ever to have seen a miracle. The Matthew Gospel is said to have been based on an Aramaic writing by the Apostle Matthew, but that is lost. Mark was not an eye-witness, nor Luke. We do not know who wrote the Fourth Gospel, John the Apostle or John the Presbyter, or some one else; but it is a didactic work rather than a biography, written to magnify Jesus as the Son of God. The nearest we have to an assured eye-witness is found in the first verse of the First Epistle of John, if that was written by the Apostle, which

says: "That which was from the beginning, that which we have heard, that which we have seen with our eyes, that which we beheld and our hands have handled, concerning the Word [or word] of life (and the life was manifested, and we have seen and bear witness, and declare unto you the life, the eternal life, which was with the Father and was manifested unto us); that which we have seen and heard declare we unto you also, that ye also may have fellowship with us; yea, and our fellowship is with the Father and his Son Jesus Christ." And he goes on to say that "the message we have heard from him," is "that God is light," and that we should not "walk in the darkness." There is not in the whole Epistle one reference to a miracle, not even to the resurrection, only to abiding in God. But it is by no means agreed that the Epistle was written by John the Apostle, and there is serious reason to believe that the First Epistle of Peter, which does plainly mention the miracle of the resurrection, was not written by the Apostle.

The Gospel miracles are those of healing, the virgin birth, and the resurrection. One might as well deny that Christ lived at all as to deny that he was a healer. There is no intrinsic improbability in the statements that he healed the sick. We have had healers in every generation, followed by thousands, multitudes of whom declared they had been healed from real diseases;

and as old pagan shrines were crowded with effigies of portions of the body healed by prayers and vows to the gods, so the walls of churches have been covered with crutches and trusses thrown away by invalids who follow some Zionist healer or popular saint. But the diseases cured are usually those caused by a nervous breakdown, for the cure of which faith has a marvellous power. Such were many of the diseases healed by our Lord, who required faith of his invalids; and where there was little faith, as in his own city of Nazareth, we are told that he could not do many mighty works there. But this explanation will not hold in cases of leprosy, nor of those born blind, nor those raised from the dead. Either those were genuine miracles or they were legends that had grown up during the generation or more after our Lord's death before the Gospels were composed. It is the most natural thing in the world that such myths should arise. We know of legends not incorporated in the Gospels, such as that of the infancy, which reports Jesus at play as a child, making sparrows of clay, while the sparrows made by his companions remained clay, but those made by the boy Jesus took wing and flew away. We reject the miracle at once as too puerile, under the Horatian literary rule not to have a god intervene unless the occasion is worthy; and this is not worthy; and for this same reason I would reject the Old Testament

miracle of the borrowed axe that was made to swim.

If a multitude of stories and legends were likely to grow up in the first half-century about the wonderful teacher and healer, as we know was the case during the first century, and if, even, as in the Gospel of John, religious teaching could be told in the form of miracle stories, it may well be that stranger miracles than those really performed through an act of faith should have been included in the three Gospels, such as those of the raising of the dead. Faith, we all know, will work wonderful miracles of healing, and, in a community which easily believes, tales of wonder grow as easily. I must hold—I cannot help it if I would—that it is our duty, seeking truth, to sift the evidence and sift the miracles, with this assurance, that for us the miracles are not needed to support our faith in the teachings of Jesus Christ as to duty toward God and man. The teachings of our Lord justify and prove themselves. We cannot go back on them; but, granting conduct to be pleasing to God, whatever conclusion we honestly reach on matters of history or philosophy, be we wise or ignorant, we shall still abide in the tabernacle of his love.

The miracle of the virgin birth requires separate consideration, for much more is made of it now than was made by the Apostolic Church. It is not mentioned in the Gospel of Mark, but

is added in the later Gospels of Matthew and Luke. Nowhere else is it referred to in the Bible. Paul never refers to it to the special glory of Jesus as the Son of God, nor does the author of Hebrews. If they did not know of it, or did not find it an important doctrine, I do not see how it is important for us. Indeed, God could beyond question as easily have put the fulness of his spirit into Jesus having a human father as into Jesus with only a human mother. If he had no human father, that could be known only to Mary herself and could in no way be proved, and it certainly was not known to the people of Nazareth, who believed him to be the son of Joseph; and it is strange that Mark does not tell so astonishing a thing in his Gospel. The story told in Matthew and developed in Luke looks to me like a beautiful embellishment of the Gospel story, conceived to give the additional honor which seemed to the writers to be properly due to the Messiah, and suggested by the prophecy, "A virgin shall conceive and bear a son," which had no such meaning as was put upon it, but which, under the very loose Jewish way of exegesis, and applied to Jesus, might require him to be born of a virgin. But it would seem that the story of birth without human fatherhood, though unfamiliar to Hebrew thought, was familiar to Greek fable, which had multitudes of heroes begotten by the gods of human maidens, and I cannot deny that, ex-

quisite as the story is and ever dear as it will be to us, it represents a pagan view, and, while meant to honor Jesus and Mary, it does not honor God. Yet I do not want to lose it any more than I want to lose the sublime story in Genesis of the creation of the world in six days, with its Sabbath rest.

The final miracle of Christ is that of the resurrection and ascension. Unlike the infancy story, we have the fullest evidence from the earliest records known to us that the resurrection of Jesus from the dead was universally accepted as a fact by the church. On it Paul based his ministry. To be sure, he had had a spiritual vision of the risen Christ and regarded himself as a witness; but he also knew and believed in the resurrection on the third day, and he tells the whole story in a sort of confession of faith, "that Christ died for our sins according to the Scriptures; and that he was buried; and that he hath been raised on the third day according to the Scriptures; and that he appeared to Cephas; then to the twelve; then he appeared unto above five hundred brethren at once, of whom the greater part remain until now, but some are fallen asleep; then he appeared to James; then to all the Apostles; then last of all, as to one born out of due time, he appeared to me also." What Paul believed they all believed. Again and again in his Epistles he mentions Christ's resurrection from the dead, and bases on

it the whole weight of his ministry. If Christ be not risen Paul's whole life is a blunder; and when he attacks those who say the dead rise not, he bases his argument on the acknowledged fact of Christ's resurrection. The repeated appearances of our Lord after his death are his argument, they being accepted facts of general knowledge among the believers. So this miracle of our Lord's resurrection from the grave has vastly more evidence than any or all other miracles in the Bible. I cannot easily explain why the total church should have accepted this belief if it were not true. To be sure, if there were not so many witnesses, a myth might have arisen out of the willingness to find a prophecy of Hosea fulfilled, "After two days will he revive us; on the third day he will raise us up and we shall live before him"; or we may recall the statement of the Jews that the disciples might enter into a conspiracy of deceit. But that seems improbable and at the time hopeless.

If one refuses to accept a miracle as in the course of nature impossible, some explanation of the origin of the myth must be conjured up, even to the assumption of an American and one or two German scholars, that no such person as Jesus ever lived, and that the whole story of his life and death is a colossal delusion. But this last is past belief; and, with the evidence at hand, it is easier—apart from the antecedent denial of

any possible miracle—to believe that Jesus did rise from the dead than that so many witnesses were deceived by an imagined apparition, or that they invented the story to their own sure persecution and death. I do not say that it is finally and absolutely proved that Jesus arose from the dead in such a form that he could be seen and recognized, but no hypothesis otherwise to explain the fact that the belief was universal in the church immediately after his death and was attested by so many witnesses seems to me plausible. For his faith in this miracle Peter died. I recognize that the acceptance of this one stupendous miracle makes other miracles, otherwise insufficiently substantiated, considerably more credible; but that is all. I also recognize that my satisfaction in accepting our Lord's resurrection as being, as Paul says, the assurance and first-fruits of our resurrection into immortality, may possibly warp my conclusion in its favor; but it surely is not my conscious desire to let my wishes guide my conclusion. This I say, that if the evidence appears to lead to the belief that Jesus did rise from the dead, and did appear to the twelve and to many others, then I am glad; but yet the disbelief would not, whatever Paul's hasty language allows, affect the obligation of our conduct to obey the rules and life of the Christian religion, which Jesus promulgated, obeyed, and imposed on his disciples and now on all of us.

What, then, am I to think of Jesus? He called himself the Son of Man, and he allowed his disciples to regard him as the promised Messiah. They called him the Son of God, and John's Gospel says that in Jesus the Logos, the Word, which was in the beginning with God, which made the worlds, was made flesh in the person of Jesus Christ; and as such the Christian Church generally worships him. He, Jesus, son of Mary, man like us, is, say the ancient creeds which we repeat, the very God in one of the three Persons.

I cannot see that it is essential, or even important, that we should believe this doctrine, that the fulness of the Godhead was incorporated with the human person of Jesus Christ. I do see that it is difficult to understand how man and God can be thus unified, but that difficulty is of little account, for we can know little of God's essence, except that he is a spirit, even as we can know little of the essence of our own spirits. Nor am I clear that the author of the Fourth Gospel meant to make Jesus the Second Person in the Trinity; and if he did mean it I find no reason for believing that he knew anything more about it than we can know. It appears to me that only God knows, and he has given us no statement on the subject. Any belief or disbelief is a deduction of reason, or an hypothesis devised to account for the facts.

What does the Fourth Gospel say? That in the beginning was the Logos, the Word with God.

Now this is just what in the eighth chapter of Proverbs is said of wisdom, which is there nothing more than a personified attribute of God. It was "before his works of old"; it was with him "when he established the heavens"; "when he made firm the skies above"; ever "by him as a master workman." Philo of Alexandria added to this personification a tincture of Greek philosophy. To him and to the Jews who held the name of God too sacred to be spoken with the lips, there was needed an intermediary for the Infinite One, one by whom all things could be made, and Philo translated the Hebrew wisdom into the Greek logos, word, and gave it entity, no longer abstract wisdom but Jehovah's substantial substitute creator, who operates for him, for "by the *Word* of Jehovah were the heavens made, and all the host of them by the *breath* (spirit) of his mouth." Here the "word" is the spirit, and in Jewish interpretation easily separated by Philo from God himself. Philo's great effort was to relate Greek philosophy, Platonic and Stoic, to the Bible. He had the idea that the self-existent Jehovah, the "Am that I Am" is too transcendent and sublime a being to mix with matter, and so God created the world and rules it by his other self, his Logos, Word. The expression is Greek, and comes down through Heraclitus and Plato and Zeno and the Neo-Platonists to Philo, who found the "word" as well as "wisdom" in the

Bible. God needed an intermediary. He made the designs, the patterns, the "ideas" of things, and the Word fashioned them. This Logos Philo calls "the tool, the instrument of God."

Alexandrian ideas, including those of Philo, were rife among the Jews of the first century, and among the Jewish Christians. Apollos was from Alexandria and, like Philo, was "mighty in the Scriptures," and doubtless in the same allegorizing way which we find in Hebrews.

The first verses of the Fourth Gospel tell us that the Word was in the beginning with God, and was God, and by him were all things made. This is no more than was said of wisdom in Proverbs and the Apocryphal wisdom literature, and no more than what Philo taught of the Word. We are then told that the true light came into the world, and that he made the world. Then the true light must be the same as the Word. This true light, the world rejected. Then we are told that "the Word was made flesh and dwelt (tabernacled) among us, and we beheld his glory, glory as of the only begotten of the Father, full of grace and truth." Here the Word of Philo is said to have been incarnated in Jesus, and to have "tabernacled" among men with a divine glory. I cannot see in this the teaching that Jesus was the Second Person in the Trinity, but simply that he had in him the spirit of God, called here the Word of God, in a way far superior

to that in which it was exhibited in John the Baptist, a way that was unique, as was expected, in the Messiah. The writer of the Gospel, in his purpose to show that Jesus was "the Messiah, the Son of the living God," made use of current philosophy, half Jewish, half Greek, to express his view of the greatness of our Lord.

The other passage from which most directly the doctrine of Jesus as the Second Person in the Trinity is derived, is the baptismal formula at the end of Matthew's Gospel. The disciples are bidden to baptize "into the name of the Father and the Son and the Holy Ghost." I observe that these parting words of Jesus are not found in any of the other Gospels; but they surely represent what was a belief from the beginning in the supreme primacy of Jesus among men, as the Messiah, and as possessing a fulness of the spirit of God making him the one special messenger from God of truth and light. When the Gospels of Matthew and John had been accepted as sacred Scripture, as binding and as full of meaning as the Old Testament had come to be, it was easy to draw from these and other passages the conclusion that Jesus was the very God, God and man mysteriously united in one; and, indeed, the doctrine could hardly help following; and it was early supported by intentional corruptions of the text, as when in I Tim. 3 : 16 the confession of faith in Jesus, "*He who* was manifested in the

flesh," was by a dot in and a cross-line over an O made to read "*God* was manifested in the flesh." I can see the spirit of God pre-eminently in Jesus, but whether the doctrine of three in one is true I have no means of knowing. God knows, and that knowledge it is not important that I should possess. Only goodness is really essential as taught by our Lord, for "grace and truth come by Jesus Christ," and "of his fulness we have all received."

CHAPTER XXII

THE FUTURE LIFE

THE most solemn hour is the hour of death. The most solemn question a man can ask is, What comes after death?

One approaches this question with great awe, if he ventures to approach it at all. It is easier, pleasanter to evade the question, to rest in the easy faith of one's childhood, when he believed what he was told because he was told it, and was under no obligation to seek for himself the reason for what he was told. But we are not children; we are adults who have no right to believe anything except upon evidence presumptive if not conclusive of truth. We have been taught that there is a future state, that the soul is immortal and it has been believed the world over. It is not wholly a happy thing to raise the question. It conduces to happiness to believe what everybody always has believed, Egyptians, Babylonians, Greeks, and Barbarians, as if it were a self-evident fact that the soul lives after the body dies. But is it self-evident?

It did not seem self-evident to philosophers of old, and the wisest of them searched for reasons

to convince themselves that the soul survives the body and they were not wholly satisfied with the proof; and Cicero took a chill satisfaction to himself in saying that if it should prove that he was mistaken in believing that he should meet his friends in the other world, none of those who had opposed his belief would ever be able to twit him for his error.

It is a remarkable fact that the immortality of the soul, with its judgments of heaven and hell, found no place in the Old Testament religion. It is only in the latest fringe of the Hebrew Scriptures that we get, as in Daniel, a hint of a future life; but so dim was the faith that the ruling sect, that of the Sadducees, refused to believe in angel or spirit. The belief, I presume, came in under the Persian rule; for Judaism looked kindly on the Zoroastrian faith of Cyrus, who restored the Captivity to Jerusalem; and the Jews were favored by his successors in the time of Nehemiah and Ezra. Thus we must except the Mosaic religion from the universal inculcation of belief in immortality; and yet as the story of the Witch of Endor shows, there must have been a popular heterodox belief in the ghosts of the dead. Saul called up the ghost of Samuel; and necromancy was punished with death under Mosaic Law. I am inclined to believe that the reason why the teachers of the Jewish religion made little or nothing of the future life is because it was in the

neighboring Egyptian religion the central doctrine of its paganism, elaborated in the Book of the Dead with strange ingenuity of imagination which invented a host of gods and demons to help or harass the soul on its perilous way to the judgments of Osiris and his forty-two assessors and to the realms of bliss. In Palestine, so long ruled by Egypt, the doctrine of the immortality of the soul could not escape the poison of polytheism until the teaching of the Avesta, under the ruling Persian Empire, had replaced the many gods of Egypt and Assyria with the one supreme god Ormazd and the one almost supreme devil Ahriman. But in Sadduceeism the old rejection of a future life was retained; and even our Lord, when he met this unbelief, had to use a Biblical argument against it which does not at all convince us; for the declaration, "I am the God of Abraham, Isaac, and Jacob," does not so naturally mean, I am the God of the present living Abraham, Isaac, and Jacob, as that, I am he who was their God when alive.

I am not clear why it was that primitive men came to believe in the future life. Yet it has ever been so involved with the belief in shadowy ghosts that appear to men in waking visions, and with the return of the dead in vivid dreams for encouragement or warning, that I am inclined to believe that it was because of what they had thus seen and heard that they came to believe that

the spirits of the dead still walked the earth. The gods also appeared in dreams, as various old stories tell us; and if there were gods, supposed to exist and appear in the condition of spirits, equally the spirits of men which appeared in dreams must continue to persist after death. But such a reason has no weight with us who understand better the origin of dreams; and it becomes a necessity for us, for our own intellectual satisfaction, to investigate the value of the reasons why we believe, if we do believe, that our souls, if we have souls, do not dissolve with the dissolution of the body.

Because I am in philosophy a dualist and not a monist, a spiritualist and not a materialist, it is not difficult for me to believe in the immortality of the soul. The operations of knowing and reasoning and feeling and willing are of an order so different from those of weight and texture that it seems natural to believe, as the world has always believed, that there is something that knows and feels quite other than the brain. The qualities, functions or activities of the body, such as growth and digestion, are visibly physical, material; while those which we are in the habit of referring to mind, such as love, judgment, purpose, are absolutely different, of another order, and cannot be described or investigated in the terms of physics. It is hard work for me to imagine that a complex of brain fibres can think, can

compose an epic, can devise a cathedral, can guide a nation through peace and war, could create a civilization, or develop the Christian religion.

If, now, we are right in believing that we have minds that inhabit and rule the body, but are not the body, then it is a reasonable presumption that the mind, which is not the body, is not so attached and fixed to the body that it must sink into annihilation when the body loses life and is dissolved. The great probability is that it survives the death of the body. It is no complex of parts, as is the body, which can disintegrate and disappear. And if it can and does survive, we can see no reason why it may not continue to survive indefinitely and forever. We know of nothing that is annihilated. Matter may change its form or its combinations of atoms, but it never ceases to exist. The analogy favors the unending persistence of mind. If we have a soul at all, not material but spiritual, not brain but mind, it is easy to believe, and hard not to believe, that it possesses the boon of immortality.

Although I thus conclude from the non-material energies of the human will, feeling, and reason that the human soul is spiritual and survives the body, I have no right to avoid the question: Do not the lower animals show reason, feeling, and will, and do all these, from the protozoon to the elephant and the collie dog, possess an immortal soul as well as we? Well, I do not know why they

should not, each after its measure. We live surrounded by innumerable millions of them in this little world of ours, most of them with but an infinitesimal intelligence, and others with a considerable degree of intelligence and affection, and even sense of duty; and this modicum of theirs does not crowd our more spacious minds that range on a higher level; and the infinite universe is big enough for them all, corporeal or incorporeal. I might say, as many have said, that man's reason is different from animals' reason, and that man's reason is worth survival and immortality, while their reason is not. But I fail to see any difference in nature, only in degree; and so I have no prejudice against allowing that whatever has reason or instinct or will has a mind, and that mind may continue after death. To be sure, this objection is raised as if it were preposterous to imagine that the polyp of a sponge or a coral has an immortal soul, but to me it is not preposterous. The polyp is not so inferior to us as we are to the infinite God.

Yet we know so little about what soul or spirit is that no one has the right to dogmatize on the subject. I can imagine that a feebly and scantily segregated soul might be resolved back into its original ether or primitive infinite spirit, while stronger and better compacted spirits might resist return to the vast profound of their original source. Even so some have surmised that the

human soul which has too long sinned against the laws of its being will finally exhaust its strength and waste away. Such may not be the case, and the "eternal hope" of the final return of all to goodness is something better. Nature does not favor, and the normal mind dreads, annihilation:

> "For who would lose,
> Tho full of pain, this intellectual being,
> These thoughts that wander thru eternity,
> To perish rather, swallowed up and lost
> In the wide womb of uncreated night,
> Devoid of sense and motion?"

Another satisfactory reason why I believe in immortality is because I believe in God. I believe God is a spirit, and therefore I believe in spirit, and that there may be other spirits than the infinite spirit. If there is an infinite spirit it is almost incredible to me that there should not also be finite spirits. All the attributes of God, who somehow brought into existence all the forms of matter, would seem to assure us that he would somehow secure the creation of spiritual existences, of a vastly higher order than matter, and thus much more like himself. Such spiritual existences there seem to be and to have been, many thousands of millions of them, in the souls of men ruling their bodies, doing spiritual work; and I find it plausible, almost necessary, to believe that they have come from God,

and are little copies of the universal macrocosm. How many more there are in other worlds, or escape from other worlds, we can only guess. But if God has created such it seems likely that they will survive the death of the body, even as the ultimate elements of matter, escaping whatever temporary combinations, persist unchanged and indestructible. Why should we not thus think of souls as unitary, as Plato thought of them, indissoluble, but residing for a while in bodies, and so capable of being combined into families, tribes, and nations, even as electrons are combined into atoms, molecules, and larger masses? The combination breaks up; families and nations constantly dissolve and reform; the soul of Abraham Lincoln is drawn away from the souls of the nation he has guided; and in turn every other soul is moved by a new force to leave its old attractions of kindred and friendship, but yet merely transfers its old attractions elsewhere after the manner of the coarser attractions of physics. But the ultimate units remain indestructible, only gone over to new relations.

I think that for me the principal assurance I have of immortality rests in my belief in God. It is much that I believe that there is such a thing as the spirit separate from the body, and therefore separable, so that the spirit does not necessarily dissolve with physical dissolution. It is much, to my heart, that there is testimony

that once in Judea a man was crucified and died and afterward miraculously appeared and walked among men, as reported by men who died for their witness. But the value of these and other proofs is not absolutely conclusive. I and others can still question and doubt. To be sure, the argument drawn from the existence of God as an infinite spirit is not final, like mathematics, past possible question, but it seems to me so near demonstration that I rest in the belief. If there is one living great Spirit not shackled by physical encumbrances, it is incredible that there should not be others of a lesser grade, such as ours in the body and beyond the body. Because the divine spirit does not need a physical body lesser spirits do not need it. It is logical that those who deny the immateriality of the soul, who believe that the mind perishes with the body which created it, should usually rest their materialism on atheism, or call themselves by the milder name of agnostics.

I have already indicated that to my mind the miracles of the Bible are not sufficiently authenticated to be of conclusive value as proof of the existence of God. I have also said that the one miracle which has more support than all others combined is that of the resurrection from the dead of Jesus Christ. It is necessary to consider the resurrection of Jesus Christ as evidence of the existence of the soul after death.

The proof of Christ's resurrection rests on the concurrence of belief, in the very first generation of the church, that he did rise from the dead, and of the belief that there were many witnesses then living who had seen him after his resurrection. Their faith is unquestionable, and they died for their belief.

We may take and somewhat analyze the statements of Paul in I Cor. 15. It is a magnificent chapter, one to stir the blood of the reader, written by a mighty religious reformer, and yet a man of his day, and of his day's trend of thinking. In that chapter he treats of Christ's resurrection, and yet he surprises us by saying that there were those in the Christian body at Corinth who did not believe in the general resurrection of the dead, that is, who were Christian Sadducees, as Paul was a Christian Pharisee. Yet they seem to have believed in Christ's resurrection, and Paul argues from it as an admitted fact that the resurrection of his followers was to be expected, a most natural conclusion; although one is surprised that any one could doubt the resurrection of the dead if they had ever heard of our Lord's teaching in Matt. 25 of the Judgment of the Last Day. Paul says most pertinently: "How say some of you that there is no resurrection of the dead? But if there is no resurrection from the dead, then Christ hath not been raised."

Paul declares that the resurrection of Christ

was the sum of his teaching: "That Christ died for our sins according to the Scriptures, that he was buried, and that he hath been raised on the third day according to the Scriptures; and that he appeared to Cephas, then to the twelve, then he appeared to about five hundred brethren at once, of whom the greater number remain until now, but some are fallen asleep; then he appeared to James; then to all the Apostles; then last of all, as to the child untimely born, he appeared to me also." Here is the list of witnesses, presented to the believers in Corinth, of those in Palestine who had seen the Lord after he had risen from the dead. It is not important to seek to compare this list of witnesses with those given in the Gospels, a matter for the labors of the harmonists. It is enough to gather the fact, of which there can be no doubt, that in Palestine it was believed by the whole church that hundreds had seen Jesus after he had risen from the grave. There is real weight to us in this indisputable fact, although that which so much impressed Paul, that he had himself seen the Lord, would not be evidence to us, for it was a vision; and a vision may be, and often has been, subjective. Paul had at least one other vision when he saw unutterable things; but frankly we must admit that his visions may have been the product of an intensely excited imagination.

It is difficult so to explain the general belief

among the earliest Christians that their leaders and hundreds of others had seen Jesus alive after his death. To suppose them mistaken is to suppose that the Apostles, the chief witnesses, lied, and died for their lie, and that the other witnesses were a myth which the Apostles invented, nothing less than another lie, which was accepted by their credulous followers and by Paul. Paul was honest, for he really believed he had seen the Lord; but I cannot see how Peter and James and the other disciples who had followed Jesus for years, not to speak of the mother of Jesus who lived with John, and the other women who followed our Lord, could have been mistaken in their belief that they had seen him again in the flesh. It may not have been in the flesh, although the story of Thomas's unbelief, and that of Christ's eating of fish, declare it was; but whether in the flesh or in a spiritual apparition, as not a few now hold, makes no difference as to the evidence of the continued existence of the soul after death. We need not concern ourselves with the nature of our Lord's resurrection body, which we are told passed through closed doors, for it is only his soul that this question has to do with.

Yet I admit that the actual reappearance of Jesus in a visible form is so extraordinary, so unique, that one must be pardoned for doubting whether it be not a myth. No other case is known, even in the Bible, that would be credible

to this present generation. The story of Lazarus is told only in the Fourth Gospel, which is not history, but doctrine. The story is told as a parable is told, for the teaching attached to it. At this day if a teacher of new doctrines were arrested, tried, condemned, and beheaded, and a hundred of his followers, and as many opposers, saw the execution, and then if they and others said they saw the head restored to the body and again take full life, perhaps we who did not see it would believe their testimony, but scarcely any less degree of evidence would suffice us. The evidence favors the actual reappearance of Christ after his crucifixion, but we wish that such cases might appear in our own day, under more critical observation; and if there are those who still doubt, as we are told that "some doubted," or as the Jews disbelieved who declared that the disciples had stolen the body, we need not blame them, and we are under no obligation to deny them the Christian name. For what makes one a Christian is not what he intellectually believes, but how far he takes Jesus as Master and lives as his disciple. Because the resurrection of our Lord from the dead is unique, because we cannot cross-examine the evidence for it, because we cannot hear the other side, I do not find it easy to put on the evidence presented the full weight Paul put upon it, and died for its truth. It has weight, great weight; but I admit that I find

myself searching for other reasons, and resting even more weight upon them.

The only positive and conclusive evidence by which we might hope to prove the persistence of the soul after death must come through actual communication with spirits of the departed. It is much to be desired that investigations in this direction be carried on until a general conclusion can be reached. Such a favorable conclusion I do not regard as hopeless. Such physicists as Sir Oliver Lodge, and other scholars who carry on the work of the Society for Psychical Research, believe the evidence already obtained is sufficient to prove that disembodied spirits do communicate with the living. I am among the majority who are not yet convinced. There are too many chances for error, or imagination, or even fraud; or, it may be, for transferrence of thought from the inquirer to the medium without any fraud on the medium's part. Should it ever seem clear that such communication takes place between the living and

> "The immortal mind that hath forsook
> Her mansion in this fleshly nook,"

it would seem almost certain that such persistence involves immortality. The soul that can survive for years or centuries can almost certainly live forever, although the possibility is not excluded that it may disintegrate and fade away.

We can hardly say that telepathy, if it be admitted as a real phenomenon, is a proof of the existence of the soul separate from the physical brain, and so of its persistence after death. Telepathy concerns the passage of thought between two distant but living persons; and the two brains may be conceived of as themselves able to transmit and receive the current of thought. Yet this raises the question of the nature of the soul, and so of immortality.

The evidence for telepathy is, I suppose, considerably stronger than that for communication with the dead. Almost every family has some mysterious story of its own. In my own family my father when a boy thought himself one night in great danger of being murdered, and at that same hour his mother received the impression, though many miles distant, that he was in great danger, and she rose from her bed and prayed for him. If there is truth in telepathy a thought can pass hundreds or thousands of miles from one mind, or brain, to another mind or brain. It must be carried by some medium, and we know of no medium but the ether. Now the sensations we know of in the body are not carried by ether, but by the nerves. It would seem likely that the thought waves, carried plausibly and even probably by the ether, must find their source of origin and their receiver in something analogous to ether and thus able to act upon it; or the trans-

mitting and receiving minds must actually be products of ether, just as is the case in wireless telegraphy, or light, or gravitation. For it is the movements of the ultimate electrons, which are merely modifications of ether, on which their power rests. May we not then think of the mind as the transmitting and receiving organ, and the ether as the conductor of thought; and the mind itself as a spiritual segregate of ether, just as electrons are the physical segregate; so that what Paul calls the spiritual body may be constituted of ether, and be the mind itself, or, if not, the ultrasubstantial organ through which the mind works, even as we may think of the whole infinite ether as the coeternal and coinfinite mystery in and through which the infinite God lives and works? God's mind and will pervades ether and has its being in it; and I know of no supposition more probable than that the human mind in its essence and substance is somehow ethereal. Sir Oliver Lodge hints as much when he says in "The Ether of Space," p. 123:

> We know that matter has a psychical significance, since it can constitute *brain*, which links together the physical and the psychical worlds. If any one thinks that the ether, with all its massiveness and energy, has probably no psychical significance, I find myself unable to agree with him.

And he quotes Clerk-Maxwell, a chief master of physics, as saying, p. 117:

> Whether this vast homogeneous expanse of isotropic matter [the ether] is fitted not only to be a medium of physical interaction between distant bodies, and to fulfil other physical functions of which, perhaps, we have as yet no conception, but also . . . to constitute the material organism of beings exercising functions of life and mind as high or higher than ours are at present—is a question far transcending the limits of physical speculation.

Such a question physics cannot, it is true, answer, but philosophy and psychology can raise it and perhaps at some time answer it. For we have but just begun to gain a glimpse of the mystery of this insensible, impalpable substance, to our senses thin as nothing, yet so dense and so strong that it holds the moon from flying away from the earth by a force equal to that of a column of steel 400 miles in diameter holding our satellite to our earth. We do not know, but we may say that if out of the infinite and apparently eternal ether all material bodies have been segregated, it is possible that from the same source, as from the very body of God, human souls have also been segregated, and it is easy to conclude that as, when the body dissolves, each ultimate atom yet remains unchanged, so the soul unity may also persist independent of the body.

Of course, I have not been able to prove conclusively the immortality of the soul. Nobody can. Most of us take it on faith, without consideration of evidence, or simply because we wish

to believe. But the wish to believe is no proof, nor the general faith, nor the happy effect of belief. It is well, even obligatory on a thinking man, to question the grounds of his belief, so that he may believe, or disbelieve, or doubt intelligently. I find a weighty preponderance of evidence that the soul survives death.

What is the nature of the future state? Every religion naturally teaches that it depends on life here. The good are rewarded and the evil punished. So the New Testament—not the Old—teaches. It teaches by entrancing pictures of the glories of heaven, and by harrowing descriptions of the pangs of hell. Yet these are all material figures of what is purely spiritual. They need interpreting. Jonathan Edwards, I have been credibly informed, told the Indians to whom he preached that in hell they would have molten lead poured down their throats. He did not really believe it, but it conveyed the true idea he wished to present, just as when he pictured to his own congregation in Northampton the soul of the wicked held like a spider over a flaming furnace. All we can say as to the meaning and authority of such Biblical figures is that which nature also teaches, that sin is corrupting and an injury and a fearful loss to the corrupted soul. And so goodness is health and strength to the soul, and happiness also. As to the conditions and the degree of either happiness or misery we

cannot judge from the pictorial language of Scripture, nor from reason apart from any accepted revelation. It is enough to believe without doubt that it will be well with the righteous in this world and the next, and that it will not be well with the wicked. The material figures we may discard, the lake of fire with the stone of Sisyphus, the gates of pearl with the houris of Mohammed.

Nor need we raise any questions as of importance, as to the opportunity for repentance and restoration in the future life. It is enough to know that the soul's will is free to change for good or bad in this world or the next, and that God is and always will be good and merciful. If a soul chooses to turn from evil to good, no matter when, the good Father cannot help accepting him; it depends on the will of the soul. So we cannot be certain, even from Scripture, but we are allowed to indulge the comfortable hope that somehow evil will at last come to an end; nothing more.

If the soul does survive death, what then? That is the practical question. If the soul does survive death then we should live under the power of the eternal life. This life is but a vapor which soon blows away. Our duty is to live, in the language of the first of Jonathan Edwards's seventy "Resolutions," as we would wish we had lived "never so many myriad of ages hence."

It is profitable to believe in a future life; it helps us to live a good life during our little day. That is no reason for deceiving ourselves or others as to immortality, but if for satisfying reasons we believe in immortality, that belief should in all prudence affect our character. But the belief in immortality is not in itself essential to goodness; it is only helpful to goodness. And goodness is the only essential thing, not any belief whether in immortality or in God himself. So Paul went too far, spoke too hastily, when he fell short of the best Stoic philosophy and said: "If the dead are not raised, let us eat and drink, for to-morrow we die." Whether the dead are raised or not the duty remains the same. We are not brutes, living only to eat and drink and escape pain. We have the sense of right and wrong; the consequences need not control us. To love others and to sacrifice or even die for them is right, is beautiful; and the obligations of character do not rest on the will or even on the existence of God, but on essential rightness. To be sure, many of us, apart from belief in God and the future state, will take the Epicurean view which Paul so hastily expressed; for morals apart from religion are very weak. Even backed by religion morals are fearfully weak. They cannot prevent war. So all religions, except the Hebrew, have made much of the future life, and have created innumerable heavens and hells to attract

to virtue and to deter from vice; and when, to us who have reason to believe that the death of the body is but an incident in the life of the soul, our Lord presents the sublime panorama of the final judgment, his "Come, ye blessed," draws us with the cords of love; and his "Depart, ye cursed" adds multiple intensity of force to our resolve to escape the fruit and penalty of sin.

CHAPTER XXIII

THE ESSENCE OF CHRISTIANITY

WHAT I have to say on this subject is so simple, as it seems to me, so primary, so self-evident in its truth, that I might be inclined to doubt whether it is worth while to say it. Yet simple truth is the most important of all; and truth is likely to be simpler than error and more easily understood. If I have a sore tooth, that fact is simple and easily comprehended; what is hard to comprehend is the error which requires me to believe that it does not ache, and to will away the pain.

In considering the essence of Christianity, we must begin with fundamental things. Now, there are two big words that have to do with the conduct of life, one *true*, the other *right*. They give us the nouns *truth* and *duty*. They belong to two different domains, the intelligence and the conscience. One considers what you must *believe*, the other what you must *do*.

Both of these domains, truth and duty, are of infinite importance, and yet one is vastly more important than the other; for one infinite can be

bigger than another. An infinite plane is infinitely larger than an infinite line, and an infinite of three dimensions is infinitely larger than one of two. The value of truth is measureless; but the value of duty is measureless in a higher category.

The fact that the value of duty is higher than that of truth is not one to be argued or proved. It is only to be asserted and claimed. If one does not see that moral character is better, higher, than intellectual ability, then let him live in his blindness; he cannot be cured. If there was once an English philosopher and judge who was rightly called both "wisest" and "meanest of mankind," then, in putting him up or putting him down we fix our own status in the realm of values. What is mean degrades vastly more than what is wise can lift, for rightness of conduct is vastly more worth than correctness of belief.

(1) The science of the *right* is what we call *ethics*. It embraces the whole domain of *duty*. It includes duty to oneself, to one's friends, to one's enemies, to all men, to the beasts below us, to angels, to God, to all things and all beings, from dust to Deity. It is ethics that makes a maid sweep a room clean; it was ethics that made Abraham feed the angels; it was ethics that accepted Gethsemane and the cross.

Ethics is a bigger word than religion, for it includes it. If ethics is the science of duty, it embraces all duties to all beings, under all relations.

But that part of duty which relates to God we call *religion*. Religion is, then, a subdivision, a large subdivision, under ethics.

(2) The science of truth we call *philosophy*. As ethics asked only one question: What is right? so philosophy asks only one question: What is true? Its domain covers the whole field of fact. It makes no exception—it asks on every possible subject, material, spiritual, human, divine, for the exact truth in all its relations. It reaches in its investigation from the minutest corpuscle or electron, through all the waves of infinite ether, through all the phases of animal and human intellect, up to the very throne of God. It has its parts and divisions. That section of philosophy which has to do with God, we call *theology*. It is a part of philosophy, as religion is a part of ethics.

Now, let this be kept in mind, that religion is a section of ethics, as theology is a section of philosophy. But before reaching our narrower topic, which is the essence of Christianity, let us consider ethics and philosophy a little further.

Ethics, the science of duty, has one central rule out of which all duties are evolved—the rule of love, or altruism, if you will call it so. Do all the kindly, affectionate, self-sacrificing service you can for your fellow beings. It is not necessary to expand on this subject, only to state the central principle, which is love for beings in general, and

which directs the expression of that love to our fellow beings under rules that relate to their amount of being and our relations to them, and our opportunities of service.

But it is not at present possible to reduce philosophy, the science of truth, to a corresponding general formula. I have said that the central law of ethics is the love of the me for the not-me. I suspect that the basal problem of philosophy, the answer to which involves everything in the sphere of the knowledge of truth, of fact, is the question: What is the me, the mind, and what is matter? In the answer to this philosophical question all knowledge and science are involved. But we do not yet know. Lord Rayleigh, the highest British authority in the physics, especially of electricity, was taken by an acquaintance to see the operation of a very large electrical plant. The director of the works, who had failed to catch his name and to understand who he was, showed him everything, and explained it as if his visitor, who was far his superior in knowledge, were but a novice. At the end of the interview Lord Rayleigh, who had listened in silence, turned to his guide and asked: "What is electricity?" "I do not know," was the answer. "Nor do I," replied the great scientist. Nor do we yet know what mind is, nor what matter is. We are not settled on monism or dualism; on realism or idealism; on substance or energy.

This is the problem equally of psychology and of physics. We are learning new things that surprise us, of new chemical atoms, argon, helium, crypton, neon, xenon; of subatoms, corpuscular electrons a thousand times smaller than the atoms of hydrogen; of vortices and of ether; something we know of their properties, and we guess more, but what they are we know not. The essence of matter is beyond our ken.

And so is the essence of mind. We know something of its activities; we have analyzed them almost exhaustively, and are now beginning to study their relation to the nervous system. But how does mind work apart from matter? Can it so work? What minds are there? Is there an all-embracing mind, of which smaller minds are a part, as the physicists now tell us, that there is an all-embracing ether in which the last atoms of matter may be such revolving rings as an expert smoker puffs from his mouth? We do not know.

Now, let us come to our topic, which is the essence of Christianity. Christianity must have its relations to these two departments, one of ethics, the other of philosophy.

Now, Christianity's definition of *duty* is precisely that of ethics. It is given by Christ; it is given by Paul. It is the law of love. "Thou shalt love the Lord thy God with all thy heart," "and thy neighbor as thyself"; "The greatest of these is

love." There is no difference between ethics and Christianity on this subject.

Then, what is the use of Christianity? How does Christianity bring any increment to general ethics?

This, that Christianity taught ethics its answer. This is Christianity's patent, this doctrine of love.

Judaism has a teaching of love, but this is not its predominant note. The chief demand of Judaism is righteousness, what we commonly call morality between man and man. This is all there is, so far as duties of man to man are concerned, in the Ten Commandments. It is simple righteousness, justice, morality. "Honor thy father and thy mother," the only positive command. "Thou shalt not kill," "Thou shalt not commit adultery," "Thou shalt not steal," "Thou shalt not bear false witness," "Thou shalt not covet." That is all, no love, not even mercy. The answer to the question of duty is given with special care in several passages in the Old Testament. "What doth the Lord thy God require of thee but to do justly, to love mercy, and to walk humbly with thy God?" Here justice is put first, and mercy, a form of love, pity for the suffering, is given more than usual prominence as next to it. In the fifteenth Psalm the question of duty is formally asked: "Lord, who shall abide in thy tabernacle?" And the answer is very il-

luminating as to the thought of Judaism on ethics. The answer is: "He that walketh uprightly," "worketh righteousness," "speaketh the truth," "backbiteth not," "nor doeth evil to his neighbor, nor taketh up a reproach against his neighbor," by whom "a vile person is contemned," who "sweareth to his own heart and changeth not," who "putteth not out his money to usury, nor taketh a reward against the innocent." We are told that, "he that doeth these things shall never be moved." Here not even that form of self-sacrificing love which we call mercy is included in the list of the merits which assure the favor of God.

The eighteenth chapter of Ezekiel is perhaps the most magnificent statement of Jewish ethics to be found in the Old Testament. It is of immense value for its vivid and emphatic statement of the value of individual personality. It is the chapter which tells us that no man shall be condemned for the sins of his father, and no man accepted for his father's virtue, but "the soul that sinneth, *it* shall die." Over and over is repeated the list of the virtues that bring the divine favor and the sins that God condemns. Here is the catalogue of virtues, so far as duties to one's fellow man are concerned, and they are mostly negative. First: "He hath not defiled his neighbor's wife," has done no injury to the primary law of chastity. Then he "hath not

oppressed any"; then he "hath restored to the debtor his pledge"; then he "hath spoiled none by violence." Then comes an act of love in the form of mercy, he "hath given his bread to the hungry, and hath covered the naked with a garment." Then the prophet returns to acts of justice: "He that hath not given forth upon usury, neither hath taken any increase, that hath withdrawn his hand from iniquity, hath executed true judgment between man and man." Of such a man it is said: "He is just, he shall surely live, saith the Lord." Doubtless such a man will live under any dispensation, old or new; but what I am here concerned with is the emphasis put upon justice, righteousness, honest dealing with one's neighbor, and the scantier recognition of the law of love. This is the clear ethical distinction between the Old Testament and the New, that where the Old gives the primacy to righteousness, the New gives it to love.

What has been said of the discovery, we may say, of love by Christianity as the supreme law of right, is equally, or more clearly seen to be true if we contrast the ethics of the New Testament with the best ethics of Greece or Rome, or India or China. The greatest philosopher of Greece, Aristotle, wrote a special treatise, indeed two, on ethics. He declares that happiness is the chief end of man's existence, but that happiness consists not in pleasure, wealth, honor, but

in a life of sound reason, or virtue. Virtue seeks out the mean between extremes of conduct. The highest happiness, and so virtue, "consists in the harmonious exercise of man's highest powers; and, since the chief of these are intellectual, the truest happiness is to be found in the life of contemplation, or philosophic thought."

I cannot need to show how different all this is, with its centring on self-culture, from the self-forgetfulness of Christianity, which seeketh not her own. A study of the ethical writings of Cicero would show a similar self-centred virtue, which puts justice before love; and the ethics of Buddha and Confucius are even further below that of Jesus.

Thus it was that Christianity first taught ethics its first principle of love. In doing this, it showed that righteousness—justice, common morals—is not enough. Something more vital is needed, something more positive and forceful. Not to have done wrong is something, but it has in it nothing really divine. To do justice is but the neutral level of morals, not bad and hardly good.

There is a Russian tale of a woman who died and was sent to hell. She was astonished and angry to find herself there. So she cried and screamed and called aloud to Saint Peter that he had made a great mistake in sending her there. "I don't belong here," she shouted; "I have never done anything wrong, I have never injured any-

body." She raised such a disturbance that at last Peter heard her, and sent down a messenger to learn what was the matter. "I don't belong here," she cried, "I have never done anybody any wrong." "But what good thing, what kind thing have you done?" asked the spirit. After long thinking she remembered: "I once gave a poor woman a carrot." "That is something," said the spirit, "I will go up and see if anything can be done for you." Shortly after a carrot was seen let down by a cord, and it came to where she was. She seized it and was drawn up. She had got well up toward heaven when she felt a tugging at her skirts, and she looked down and saw two spirits holding on to her clothes and being drawn up with her. She cried to them: "Let alone of my clothes! This is *my* carrot! It won't hold us all!" Just then the carrot broke, and back she fell into hell; and the angels who were looking over the wall of heaven said: "What a pity, and she came so near succeeding."

Christianity demands positive love, nothing less, and with that nothing more. It is not enough that one should aim for the full development of his nature; that is essential selfishness. It is a good part of education to develop and train one's faculties to their utmost power, but Christianity requires that this be done not for the sake of the owner of the faculties, but that the faculties may be fitted to do more service for

other people. Thus culture is not the end of Christianity. It is good as a means of service, but is not the true end in itself. Nor even is it enough to make communion with God here, or enjoyment of him forever in another world, the chief end of life. Even that is selfish, and is not the dictate of anything higher than self-love. The answer which Christianity makes to the central question of ethics is love, and this answer is its glory and its justification. If it could not give this answer, it would have nothing new, nothing worth while. Its crowning gift to man is expressed in its great law of love to being in general, in proportion to its amount of being. This rule requires supreme love to God, and love to one's neighbor as to oneself.

Now, if Christianity requires this love supreme, it requires a resolve to begin such a life. This is conversion. It is what conversion means. If you call it repentance, it is sorrow that you have not lived the life of love, and a determination to begin it. If you call it faith, it is accepting the law of love from God and his son Jesus Christ, with the assurance that you will thus be well-pleasing in his sight. Faith means the rejecting of all dependence on formal service, or intellectual creed, and the submission of the soul to the simple love of God. If you call it regeneration, it is still nothing but the love of God shed abroad in your heart by the Holy Spirit.

Anything that brings this resolve of love is sufficient, and is essential if not complete Christianity. All religions that have blindly secured it are so far good. Plato tells the beautiful story of the choice of Hercules, the mighty hero whose twelve labors were for the clearing of the earth of its evils, for the use of man. His choice was between a vile love and a divine love. The story is a Christian one, although it comes out of pagan times, one of the rare previsions of Christianity which made the early Christian fathers willing to count Plato almost with the best of the Hebrew prophets. Hercules comes nearer to being a Christian than any other of the gods or demigods of classic antiquity, unless it be Prometheus, and Plato's parable would put him level with the patriarchs of Jewish story. But what Greek philosophy or ethics teaches occasionally and imperfectly, Christianity formulates, as the rule of life, and most successfully persuades to this conversion.

Love as law of life involves not only the beginning of the life of love in conversion, but it accomplishes and rules that life in service. Religion is service. It is not dreaming, it is not communion with God; it is not anything merely passive or receptive, beautiful as such mystic experience may be. I do not mean to say that a youth in his years of preparation for service, or a man in his hours of rest from service, should not delectate

himself in the thought of God's love for him, and his love for God; but it is the ebullition of loving service, and not the fomentation of spiritual caloric for the enjoyment of its warmth, not the holding of the hands up to the divine flame for the sake of its heat; nor is it even the communion of prayer that is the chief fruit of love. The love of Christ constraineth us. The beggar in the German story, who asked of Peter at the door of heaven that he might only have a seat just inside the gate, where he might ever look in the face of the blessed Lord, wished what might be expected of a suffering, weary beggar. But it was a truer conception of life for this world and the next which said:

> "His state
> Is kingly; thousands at his bidding speed,
> And past o'er land and ocean without rest.
> They also serve who only stand and wait."

They serve while waiting the next orders of service.

This makes Christianity a missionary religion. It is bound to do its best for the world. It will not only teach this world what is true, but its first purpose is to make the world good, to do it good in every possible way. Mohammedanism and Buddhism have been missionary religions, but neither of them has tried to convert the world because it loved the world. The followers of Mohammed wished dominion for their faith, and there was little love in the choice given, of the

Koran or the sword; and the Buddhist ideal was not that of service, but of blessed absorption in the ocean of God.

We have considered Christianity as a religion, which has to do with duty, and so as a section of ethics, but which has brought ethics to the understanding of itself, and has taught it its own central law of love. We now will consider Christianity as a philosophy, that is, its theology.

But this is the smaller part of our study of the essence of Christianity. Christ and Paul put love, duty, and religion before philosophy or theology. And as it is the smaller, so it is also the harder part of our study of Christianity. We recall that it was harder to get a central, unifying principle of truth, which is what philosophy has to deal with, than it was to find such a unifying principle for duty.

But Christianity being a religion of duty, rather than of truth, its philosophy centres on the same principle as does its religion, namely, on love, while branching out into other realms of truth.

(1) Christianity believes in one God, whose primary quality is love. Judaism had discovered the oneness of God, and his natural attributes, his power and his wisdom, or even his moral attributes of justice and holiness; but it had not discovered love as his convincing quality. It made him a "jealous God," a national God. Christianity

makes him the Father of all creatures which he has made. Its prayer to God is to "Our Father." It makes him the Father not of a family or a race, but of all men. It gives God no choice of loving. He must love. It is his essential nature. It is binding on God, just as it is binding on us, only infinitely more so.

(2) Christianity puts every man under obligation to love; and this means individual responsibility, with all its corollaries of free will, and all the equal obligation of service to be given and received; which implies the democratic unity or equality of the race. "Thou shalt love thy neighbor as thyself." This gives us the lesson of the brotherhood of man. If God is "our Father," then all are one.

And all brethren having equal responsibility for love and service, each soul must be regenerated for itself. There is no salvation by wholesale, by races, by birth. The soul that sinneth it shall die, and the soul that repenteth shall live. But this conversion, this acceptance of the law of love, must come in some way, whether by education or catastrophe is not essential. It may come in sudden wise, under an overwhelming view of the evil of sin, and the love of Christ, or it may be that

> "Through no disturbance of my soul,
> Or strong compunction in me wrought
> I supplicate for thy control,
> But in the quietude of thought."

How it comes is not essential; but that repentance come some way is imperative, both as religion and as theology.

(3) Closely connected with this principle is the further teaching that Christianity must be a spiritual and not a formal ceremonial religion. As it is not national, but individual, so it is not priestly but spiritual. It accepts God as a spirit, who must therefore be worshipped in spirit and in truth. Christianity may use days, places, and rites, but they are no part of essential Christianity. Christianity finds use for the Sabbath, but the Sabbath is not a part of Christianity. Christianity honors the church, but can exist without the church. Christianity has two or more sacraments, but can dispense with all of them, and still be good Christianity, for Christianity is not a body but a spirit, and that spirit is love.

(4) Christianity teaches a future life. This doctrine is not peculiar to Christianity, and does not grow out of love. A person might believe in annihilation, and yet be a very good Christian. But the doctrine of the future life is of great importance to Christianity, for comfort and for impulse and inspiration, and it is supported by the resurrection of our Lord.

(5) Christianity gets its name from Christ, as one sent from God. Therefore Christianity teaches discipleship of Christ, who brought to man all this doctrine of love. Of course, therefore, Christianity teaches biographical facts about Christ;

but we must distinguish the important from the non-important. It is interesting, but not important, that he came as a child. Paul never speaks of the virgin birth, perhaps never heard of it, as the Gospels had not been written in his time. Christ's miracles are interesting, and throw much light on his character, but they have not the importance of his teachings. Those teachings must be equally valuable if Jesus had performed no miracles or had come to the earth as others come, or had come full grown. These biographical facts, however interesting and however important, are not essential to the substance of Christianity.

(6) Christ died on the cross. This is a very important fact and very useful to Christianity, and yet Christianity would exist if Christ had died as others die. God would still have been a loving Father, and could have forgiven just the same. We are not to look on the death of Christ as propitiating the Father, who needs nobody to excite or encourage his love. No expiating sacrifice is needed, for God is abundantly able to forgive, out of his own store of love. Christ's death is the crown of his life and teaching, proves his genuineness, and is a power to draw us unto a life like his.

(7) Christ's resurrection is of even more importance, because on it is based a considerable part of our faith in the future life; and it was of

even greater importance, for this reason, to the early church. A belief in a future life of blessedness for the good, and in which persistent wrong will suffer retribution, is of no little help, especially in the beginning of a life of self-sacrificing love, for in it self-love adds its aid to disinterested love; but a belief in the future life, and so in Christ's resurrection, is not absolutely essential to Christian character, which, as we have seen, is the really essential thing in Christianity; for only the life of love is essential.

(8) Primitive Christianity taught that Jesus was the expected Messiah, sent not only to be the revealer of God, but his representative as King in the kingdom of God, and that he would return speedily to reign. But he did not thus return as he was expected. We understand the kingdom of God better now, and we make it a spiritual kingdom. But Christianity equally believes, in this present day, in its coming supremacy in the world, and works for it. This is one of the respects in which modern Christianity has improved on primitive Christianity.

(9) Early Christianity was satisfied to make Jesus the Christ, the expected Messiah who should make all things right. Very soon they began to philosophize about their Lord; and following that familiar philosophy which separated and objectified attributes, as in the Book of Proverbs the wisdom of God is spoken of as a separate per-

sonified existence, and as in the prevalent Greek philosophy of Plato and Philo the "idea," or the "pattern," of the Book of Hebrews was made to have a separate existence from its physical embodiment, so the early Christians identified the wisdom of God, his creative Logos, with Jesus, and held that this attribute had a separate pre-existence and "was made flesh" in the person of the Christ. Out of this grew most naturally a doctrine of the Trinity, the indwelling Spirit of God being added to the Word of God. But a doctrine of the inner constitution of the Godhead is not and cannot be essential to Christianity, for it is something on which we can have no knowledge. One may equal three, and three equal one, in heavenly or transcendental mathematics, but this is quite beyond our understanding or possible research. The doctrine of the Trinity is not essential, because it has nothing to do with love. We do not even know whether it is true. But we do know that the damnatory clauses of the Athanasian creed on this subject are false, because they directly contradict the supremacy of love in the realm of God. Christianity claims for Christ that in him dwelt the fulness of God; so far as we can see, as he is described to us, as his teachings have come to us, all of God that he could hold was in him. He taught God, because he felt and held the love of God as no other man had ever done or had approached doing.

But the essential thing is not the person of Christ, not even the death of Christ, but the teachings of Christ. It is in these that his divinity inheres. And they are divine not because he taught them, but because they are true; and the whole of it is love. Whoever gets this love, and however he gets it, is an essential Christian, no matter how many false beliefs he has about Christ, and no matter if he never heard of Christ, and calls himself a Jew or a Moslem, or is a worshipper of a million gods, as Christians believe in a million angels and devils.

Yet remember the primacy of Christianity, because love and life and truth came through Jesus Christ. Buddhism does not teach this doctrine, nor did Plato or Cicero. Socrates, the best of them all, gadfly of the state, ends his life with a cock to Esculapius. The advent of Christianity is the marvel and the flower of both philosophy and religion. It was the awakening of both religion and philosophy to a consciousness of themselves. That man only is a Christian who makes love the inner principle and the outflowing current of his life, and thereby chooses to be made a disciple of Christ.

CHAPTER XXIV

THE SUM OF THE WHOLE MATTER

THE sum of the whole matter is this: Reason is the last arbiter; our own reason, our individual reason, my reason, nobody else's. There are various sources of authority, Bible, or church, or God, but each one must be tested by our personal reason before it is believed. We are all of us at bottom pure rationalists, cannot help being. What God is, whether there be a God, we must decide by the best reason we have. If we are made in the image of God that image is in reason, not in body; and our little reason can and must get some true view of God, just as our little, blinking, myopic eyes can truly, if imperfectly, descry the infinite spangled universe. Reason may see faintly, even erringly, but it is all we have to guide us. It may rest on custom, tradition, social inheritance, the teachings from childhood of those whom we think possessed of more knowledge and judgment than we, but all our beliefs rest on such reason as we have.

We may travel beyond our reason; we may imagine, or guess, or wish, but on these we can never rest. Poets, to tell a pretty story or point

a lesson, have invented lovely or strange tales of gods and goddesses, and what they have told as story whole nations have taken as verities coming from the fathers who had better vision, and made a religion of them, and their children have believed them true, until wiser men have torn away the pomp and gold of gay religions and have found the true God enshrouded there, and have worshipped him with Platonist adoration, or they have found only a stock of wood under the gilded veneer and have burned the wooden sham of their faith. It is reason that has made them find faith under the false finery, or reason that has made them despair. It is by reason that we too must test the Bible as well as the Vedas, Moses as well as Hesiod or Zarathustra. If we find in our Bible anything of cosmogony or history or morals that does not approve itself to our reason, we must reject it; we cannot help it. That did not, could not, come direct from God, but came through fallible men, the framework and the cord of whose harp were constructed after the fashion of their day, and could not sound perfect music. Reason prefers our school text-book to our Bible on matters of geology and astronomy, sifts Bible history by comparison with contemporary records recovered from the sands and clay of ancient empires; and reason it is that judges the teachings of Jesus to be superior to the sacrificial cult of Leviticus, or the cursings of

Ezekiel and Amos. Our light is better than theirs, for our reason has more knowledge, more experience, on which to rest.

The best human reason—I think I do not err—whether it looks outward or inward, finds God. He is in nature about us; he is in the reason within us. It is not simply that we wish to find God, but we find him whether we wish it or not. Because things are, therefore something always was, self-existent, existing from the necessity of its own being; something, matter or mind, or both, filling the vacuity of space, out of infinite ether creating finite atoms and worlds, doing it purposely, intelligently, with infinite power and boundless wisdom. We find evidence—we can hardly be mistaken—not only of creative power but of constant anticipative foresight, looking forward through processes of development to the higher and highest forms of life and intelligence, to man; as if there were a Superior, a Supreme Power which guided the created world. So, in the beginning God; and so God through all the processes of creative evolution; a God not only boundless in might and wisdom, but boundlessly good, his laws imposed on man as good as they are wise, as beneficent as they are stern.

To err about the laws of nature or of God is unfortunate, and may be calamitous; to disobey them wilfully is wrong. Our fallible reason may err as to these laws, or as to facts of profane or

sacred history, but if one's belief is based, though wrong, on the evidence accessible to him, it is only of secondary importance to him, because the error is intellectual and does not affect his moral character; and moral excellence or obliquity is infinitely more important than rightness or wrongness of mere belief. Character before God or man depends not at all upon what we believe, but upon what we do. If Abraham believed God commanded him to slay his son as a sacrifice, his attempt to do it was an act of supreme virtue; but he was in error, for it is impossible that a good God could have commanded it. It is not supremely important, however desirable, that any single one of our beliefs in religion should be correct, not even our belief in God; but if we try to live up to the rule of duty, which is love, we shall be acceptable to God whether we know anything about him or not; and we shall not be acceptable to him, no matter how correct our knowledge of him, if love be wanting. Theology may be the queen of sciences, but it is all a matter of opinion or belief based on evidence, as to the value and bearing of which good men may differ. It is a noble study, worth giving one's best thought to, but the enforcement upon one's soul of the obligation of duty until it is natural to do right and impossible to do wrong—here is task, here is primacy.

For the most important of our beliefs, if not absolutely essential, is our common belief in God,

which involves belief in the immortal soul and the future life. This allows hope and impresses duty to live such a life of goodness as will make the transition happy into the future life.

Yet, as it appears to me, our purpose and aim should be to love and cultivate goodness for its own sake, because it is good, rather than because it will secure happiness and avoid misery in the future life. In the answer to the first question in the Assembly's Shorter Catechism, "man's chief end" may be "to glorify God," but it is hardly "to enjoy him forever"; however, that may be the result. To glorify God is very nearly the same thing as to magnify goodness, for God is infinite goodness. That is his ruling quality. To be utterly, totally good, loving, helpful, self-sacrificing, good as the holy God is good, to do justly, to love mercy, this is to walk humbly before God, and this is "man's chief end," and has the promise of the life that now is and of that to come.

I cannot quite agree with those who talk much of "coming back to Christ" as if it were a new discovery of the age. It is well to find in Christ a revelation of God, also inestimable teaching and example. But God is primary, not Jesus, as Paul himself would teach us, when he says that in the end Christ will give up the kingdom to the Father. God is quite as loving as Jesus. He holds no anger to be appeased. His fatherly love

can hardly need any sacrifice to remove his anger. His attitude to us is that of a father, not of a jealous judge who rules under law which infallibly exacts penalty for every offense. I cannot but believe that modern theology has made too much of the Atonement, much more than the Bible makes of it under the figures either of sacrifice or redemption. With Paul the great thing was the resurrection, more than the Atonement. He makes much, to be sure, of the Atonement, that is, Christ's death for us, but it is always *huper*, for, in our behalf, not *anti*, instead of, in substitution. We know certainly, beyond historic doubt, that Jesus has revealed to us God, our Father, and the rule of life in the spirit, not in any forms or rituals, and the eternal life; also that his teaching of God and duty has been of mighty saving influences; and that is enough; and if there be more in the counsels of God that made his death especially important, because otherwise "die he or justice must," in "rigid satisfaction, death for death," this we may properly leave in the counsels of God, who only knows where our merits and our frailties in equal trust repose, the bosom of our Father and our God.

There are those who will see a religious danger in the slipping away from the former views as to the supreme authority of the written Word of God. There is such danger. There are those who will conclude that if the outposts of faith

are withdrawn the whole fortress is lost. Their alarm we cannot help. If they have had the essence of Christianity, the love of God and man, their own faith will not perish. I think a clearer understanding of what Christianity really is, and the removal of its dubious theological defenses added to the simple gospel, as the Jews "fenced" the Law, will help not a few to choose the Christian life. And at any rate we ought not to hesitate to seek and proclaim what our best study believes to be true, out of any fear that the result will endanger our faith or that of others. Truth will prevail, and truth will be safe.

I find in the Old Testament, and therefore where I would not expect it, the clearest, the most philosophical, explanation of the transition by which the man who has sinned passes into the divine life. In vision Isaiah saw Jehovah on his throne, and he heard the seraphim about the throne cry, "Holy, holy, holy is the Lord God of hosts." That is, being interpreted, he was overwhelmed by the thought of the infinite sanctity of God, in whom holiness is supreme over every other attribute. He had a view of how beautiful and how awful goodness is, and of the God who loves and will support and crown goodness, and who hates and will oppose and crush wrong. The effect on him of this vision of the holy God was to make Isaiah look inward on himself and see his own failure to meet the faultless glory of

such holiness, and he cried, "Woe is me, for I am undone, for I am a man of unclean lips, and I dwell in the midst of a people of unclean lips; for mine eyes have seen the King, the Lord of Hosts." That, being interpreted, is that a serious consideration of the infinite beauty and majesty of the goodness of God stirs the self-convicted soul to confess and repent of its sins, for "the goodness of God leadeth to repentance." So *repentance* is the second stage in the experience of conversion. The vision of Isaiah continues: "Then flew one of the seraphim unto me, having a live coal in his hand which he had taken with the tongs from off the altar, and he laid it upon my mouth, saying, 'Lo, this hath touched thy lips, and thine iniquity is taken away, and thy sin purged.'" This third step follows and must follow, if God is good, the pardoning word heard and joyfully accepted. This we call *faith*, faith in the present and instant love and forgiveness of God. The Old Testament speaks of the coal from the altar of sacrifice, but the New Testament says that "the blood of Jesus Christ his Son cleanseth us from all sin"; yet it is all faith in God's mercy, through which we, as well as the elders, obtain a good report. But this third step does not conclude the vision or the experience of the forgiven soul; for the prophet continues: "And I heard a voice saying, Whom shall I send and who will go for us? Then said I, Here am I; Lord, send

me." The soul that has a convincing sense of the splendor of the spotless goodness of God, that has then repented of sin, and then has the assurance of faith in the forgiveness and love of God, cannot fail to hear God's call and the cry of a suffering and erring world for help on errands of mercy. He will give himself to fellow-service with Christ; and this is the final and completing stage in the process of conversion, what we call *consecration*, which is love regnant if not yet perfected in the soul, love sacrificial and conqueror over life or death, the fairest word, whether for man or angel, in the bright lexicon of Christian life.

I have used the word *conversion*, a word not soon to go out of use. It designates the critical experience which every one must have possessed who would live a worthy life. It has all these elements of religious experience, the vision of the beauty of goodness, sorrow for the wrong that has been done, assurance of the loving mercy of God, and the will to live the life which goodness and the God of Goodness require. One need not know when the will so to live becomes first conscious; it may have grown in the child through his earliest education, or it may have come later through a deep conflict and convulsion of the soul; but at some time it must begin to rule the man. One element or another may predominate in the experience, perhaps an overwhelming con-

viction of sin, with a sudden light driving away the gloom; or it may be that a sense of the love of God in Jesus Christ will so flood the soul that faith is swallowed up in victory; or it may be that a serious and yet passionless resolve may settle quietly on the soul to live a worthy and useful life—whatever the form of the experience may be it will finally settle into the conscious determination to the love and service of Being in General, that is, to God and man. And such a will, shown in life, is the crown of life, whether it appears under the Christian dispensation, or the older Jewish, or blossoms in the less favored soil of some pagan faith or some dubitant philosophy.

Why do not preachers and Sunday-school teachers understand how to make it clear to their hearers or their scholars just what it is thus to become a Christian? It is the most important thing to be taught in a Bible school or a theological seminary; but I do not think that I was properly taught it. My experience was that of many, I believe, who have been told they ought to become Christians, and who wish it, but who have not been told just exactly, in plain terms, what they must do about it. They get the idea that they must wait till it comes; or when they have asked, "What must I do to be saved?" they have heard the blind answer, "Believe on the Lord Jesus Christ and thou shalt be saved." But what is it, they have asked, to believe on the Lord

Jesus, and how shall I go about it? I think that answer about the most unintelligible that can be given in these days. It had a more definite meaning when Paul said it.

I remember how the importance of having a clear answer to that question was first impressed upon me. It was in the first year after my graduation from the theological seminary that, shortly before the opening of the Civil War, I had charge of two churches in the troubled State of Kansas. The whole population of the village where I lived was employed in cutting lumber from the neighboring Indian reserve. One day the older Methodist minister and myself were suddenly called to visit a man who had been hurt by the falling of a tree and had but a few hours to live. He was presumably of the reckless, profane class, but yet no unbeliever, and desperately wanted to make his peace with God during the very brief remaining period of probation. The older minister talked and prayed with him, but it did not seem to me that he had given any clear instruction. Then it came my turn, and the best I knew I said, but I went away sad at heart, for I felt that I had not said that something that ought to have been said.

What should be said? That, I think, which should be said to a little innocent child that knows very little of sin, and that same which should be said to the experienced man of this

selfish world. The child should be told that God is good, that God loves good children, that God will love him if he is good, that Jesus was good and loved little children, and that he died to help them be good and go to heaven; and then the child should be urged and persuaded—and the persuasion will not be difficult—to promise before God that he will try as long as he lives to be good, to please God, for God will love him and help him. That is all that is essential, but it must be followed up, that the purpose may not be forgotten, and that goodness may grow into a habit. That is all that is needed for the older people that they may be converted and become as little children. I should have told that lumberman—I hope I did substantially if imperfectly—that he knew, and God knew, that he had not lived a good and pure life, but that God is not resentful but very merciful and forgiving; and that before he went to meet his God he should follow me in a prayer of repentance and in the pledge before God that if his life were preserved, or in the brief fraction of it left, he would forsake sin and live in such a way as would please God, and that if he did this earnestly, he might now die happy in the faith that the Heavenly Father who loves the returning prodigal will forgive him and receive him even as the penitent thief was received into Paradise.

That is all I know. It is the simple gospel of

Jesus Christ as he taught it to sinful men and women who heard him gladly. And I believe that such faithful teaching to our children will give us purer and more intelligent Christians than will be gathered in by the excitement of septennial revivals. The revival is not bad when needed, but how much better that quietness of thought which offers the prayer:

"Oh give to me, made lowly wise
The spirit of self-sacrifice;
The confidence of reason give,
And in the light of truth thy bondman let me live."

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